

2000

TROOPER (UX)

Electrical Troubleshooting Manual

Contents

How to Use This Manual	2
Troubleshooting	2-10
Fuse/Relay Information	6
Circuit Schematic (see Circuit Index)	
Component Location Photographs	201
Harness Connector Views	202
Harness Routing	203

Circuit Index (continued)

	S	LS/ Limited
Rear defogger	61	61
Rear park lights	110-1	110-1
Seat belt warning system	73	73
Seat heater		147
Shift interlock system	138	138
Shift-on-the-fly	36	
Sound system	150	150
Speedometer	33	33
Starting system		
Automatic transmission	21	21
Manual transmission	21-1	
Supplemental restraint system (SRS)	47	47
Tachometer	81	81
Torque-on-demand system		37
Trailer adapter	118	118
Turn lights	110-4	110-4
Vehicle speed sensor	33	33
Voltmeter	81-1	
Wiper/washer		
Rear	92	92
Windshield	91	91-1

Circuit Index

	S	LS/ Limited
--	---	----------------

Air conditioner		
Air delivery controls	65-3	65-3
Blower controls	65	65
Compressor controls	65-2	65-2
Alarm and relay controls	70	70
Anti-lock brake system (ABS)	44	44
Anti-theft system	133	133
A/T shift indicator	89	89
Automatic transmission controls	39	39
Back-up lights	112	112
Brake lights	110-8	110-8
Brake warning system	71	71
Charging system	22	22
Cigarette lighter	155	155
Console lights	117	117
Cornering lights	110-10	110-10
Courtesy lights	114-2	114
Cruise control	34	34
Dash fuse box	11	11
Dash lights	117	117
Defoggers		
Door mirror	148	148
Rear window	61	61
Digital clock	154	154
Dome light	114-2	114
Engine coolant temperature gauge	81	81
Engine controls	23	23
Fog lights		100-1
Front park lights	110	110
Front side marker lights	110	110
Fuel gauge	74	74
Fuel level indication system	74	74
Ground distribution	14	14
Hazard lights	110-4	110-4
Headlights	100	100
Horns	40	40
Ignition system	20	20
Indicators	81-2	81-2
Key-in ignition warning system	73	73
Keyless entry system	130	130
License plate light	110-1	110-1
Lighting switch details	12	12
Lights-on warning system	73	73
Luggage room light	114-2	114
Map lights		114
Meter Assembly	81	81
Oil pressure gauge	72	
Oil pressure warning system	72	72
Power distribution	10	10
Power door locks	130	130
Power mirrors	141	141
Power mirrors folding		141-1
Power seats	140	140
Power sunroof		122
Power windows	120	120

HOW TO USE THIS MANUAL

Troubleshooting Information

This manual contains the following troubleshooting information:

- Fuse Information
- Circuit Details
 - Electrical Circuit Schematic
 - Component Location Index
 - Circuit Operation
 - Quick Checks (if required)
 - Troubleshooting (if required)
- Component Location Photographs
- Harness Connector Faces
- Harness Routing Views
- Connector and Ground Cross-reference Index

The **Electrical Circuit Schematic** should always be your starting point in using this Electrical Troubleshooting Manual. The schematic shows the electrical current paths when a circuit is operating properly. It is essential to understand how a circuit *should* work before trying to figure out why it doesn't. Schematics are shown with the starter switch in the OFF position and other switches in the off or "at rest" position.

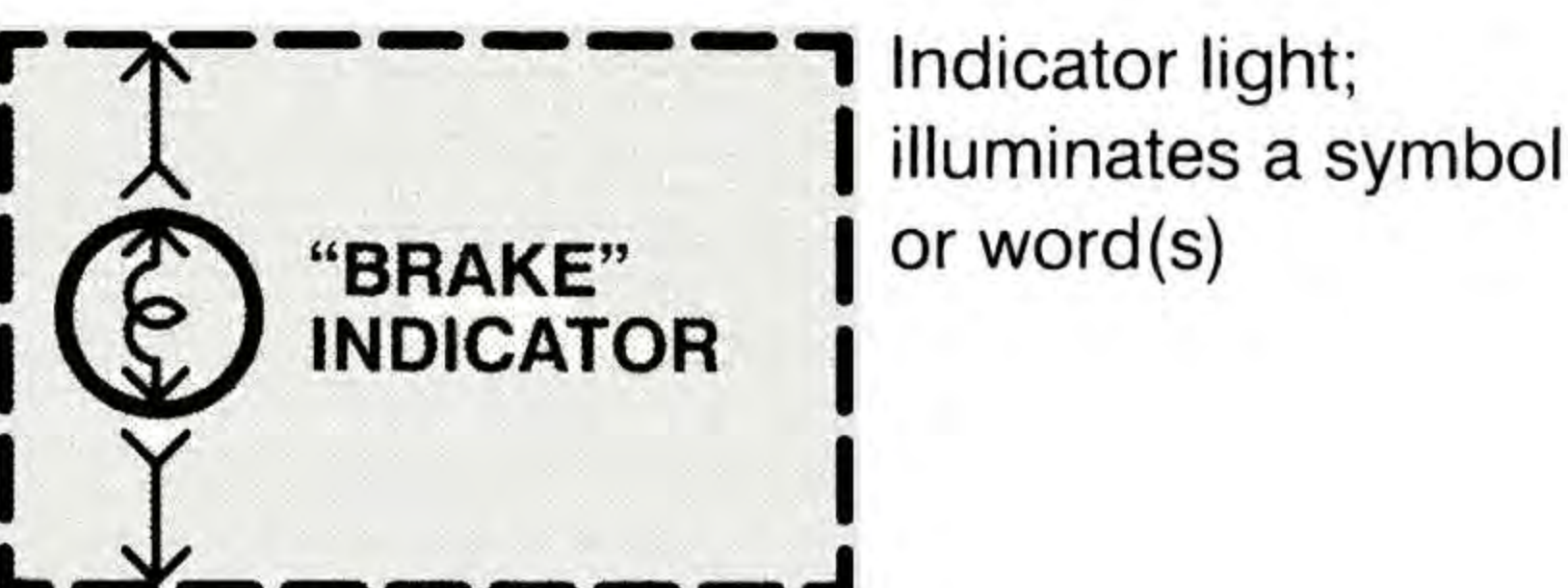
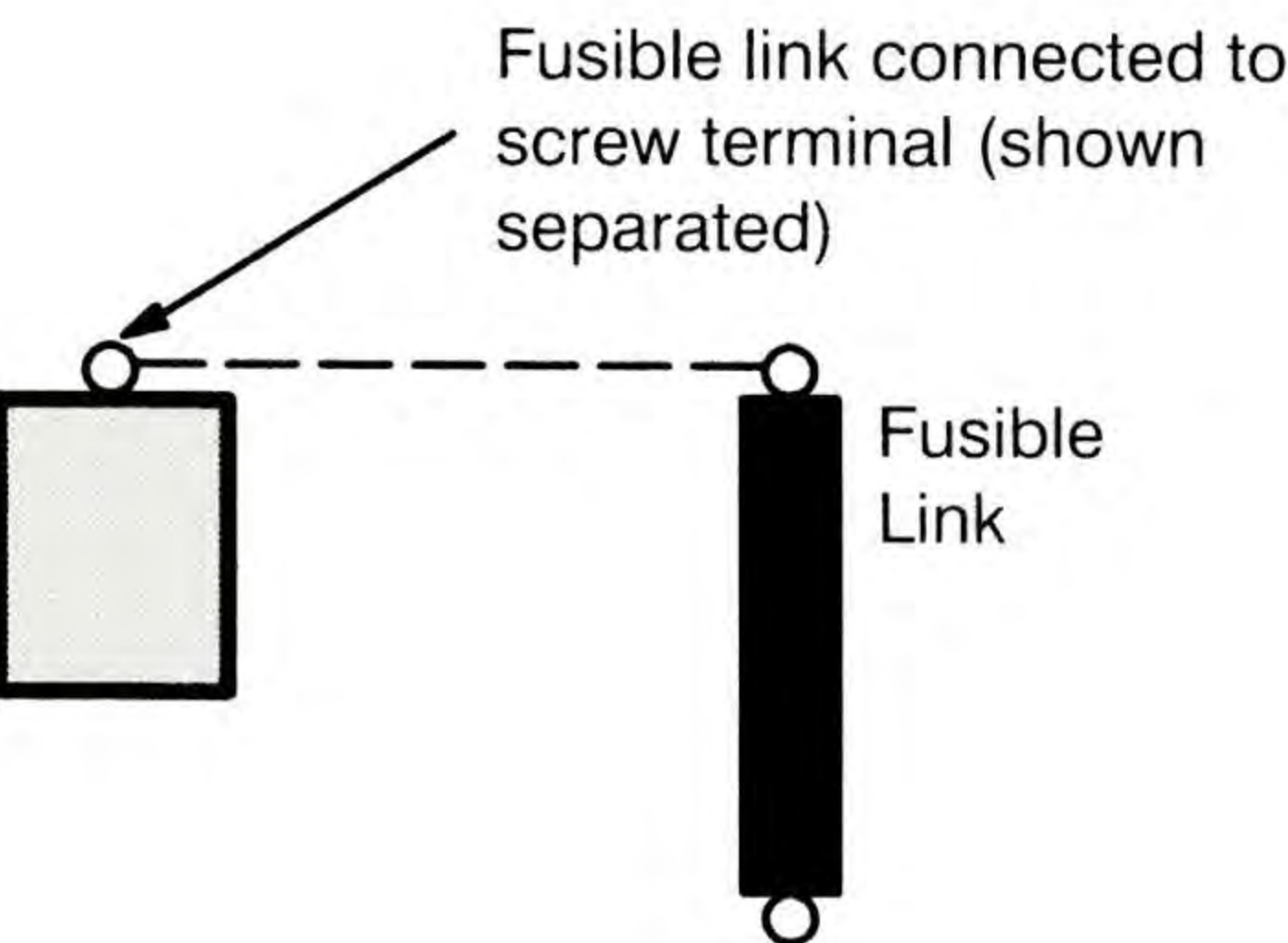
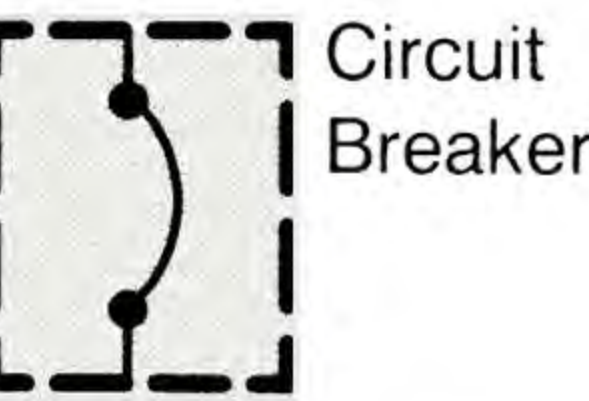
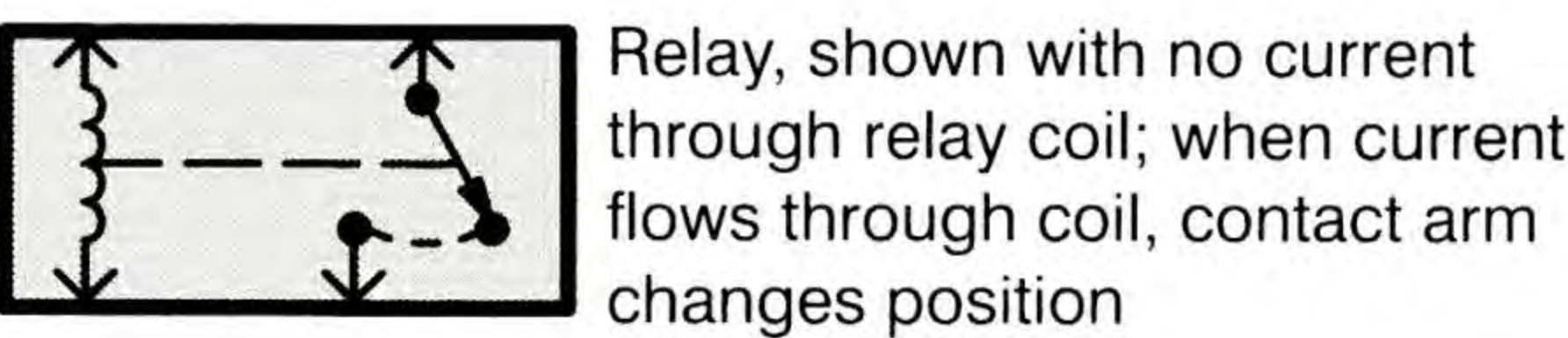
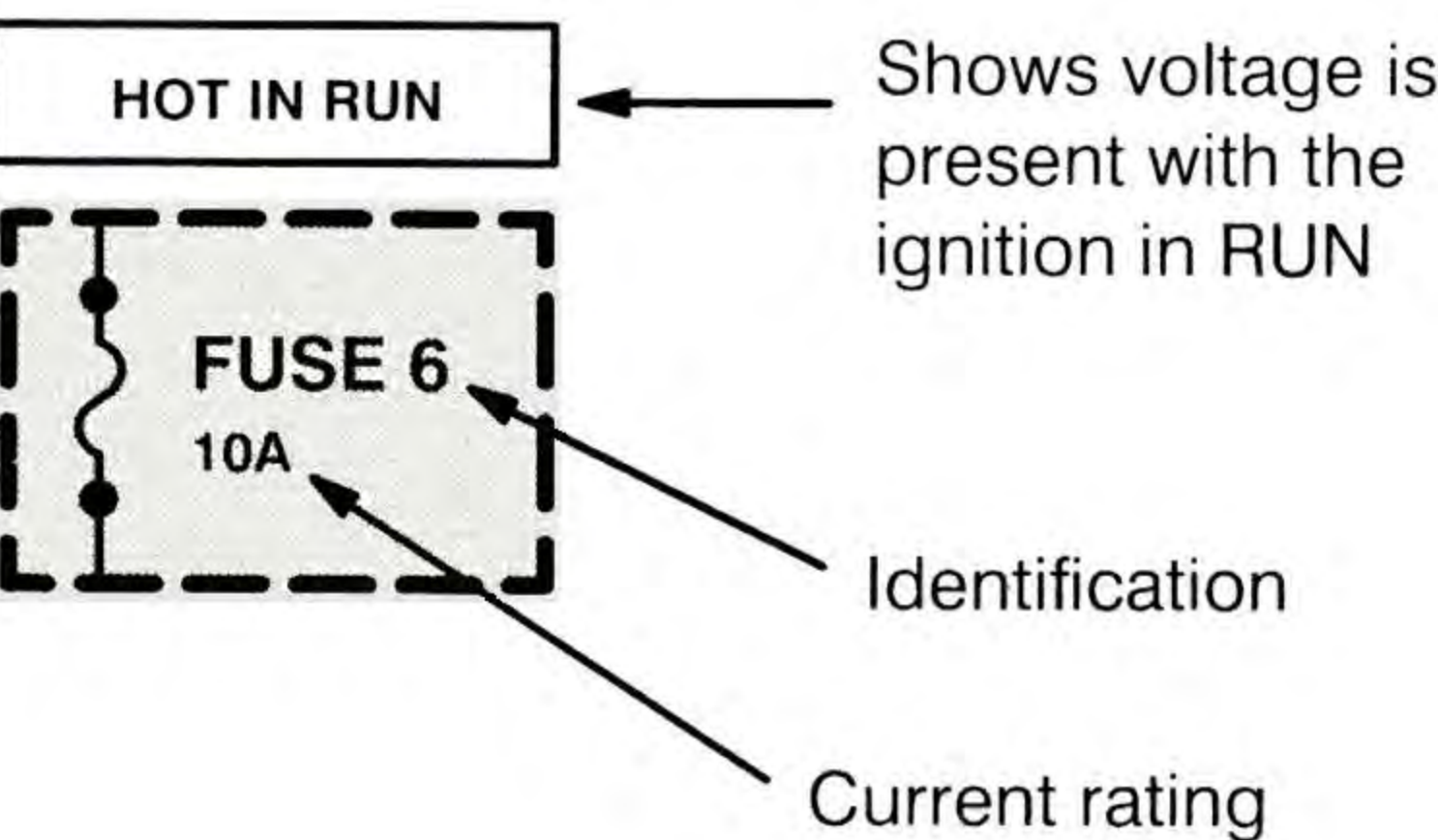
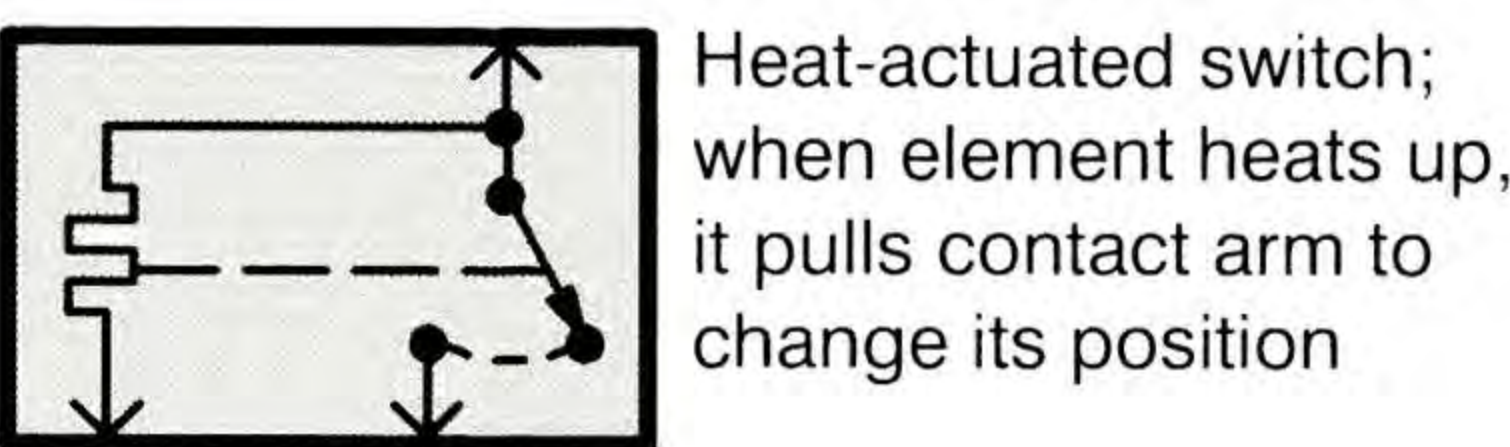
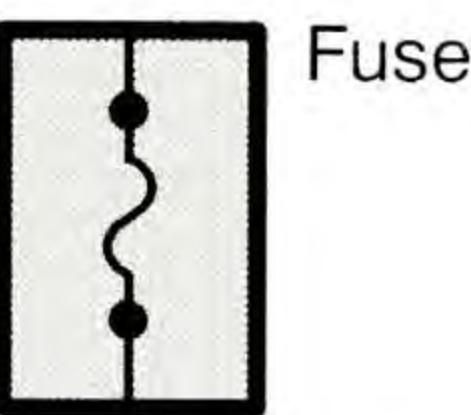
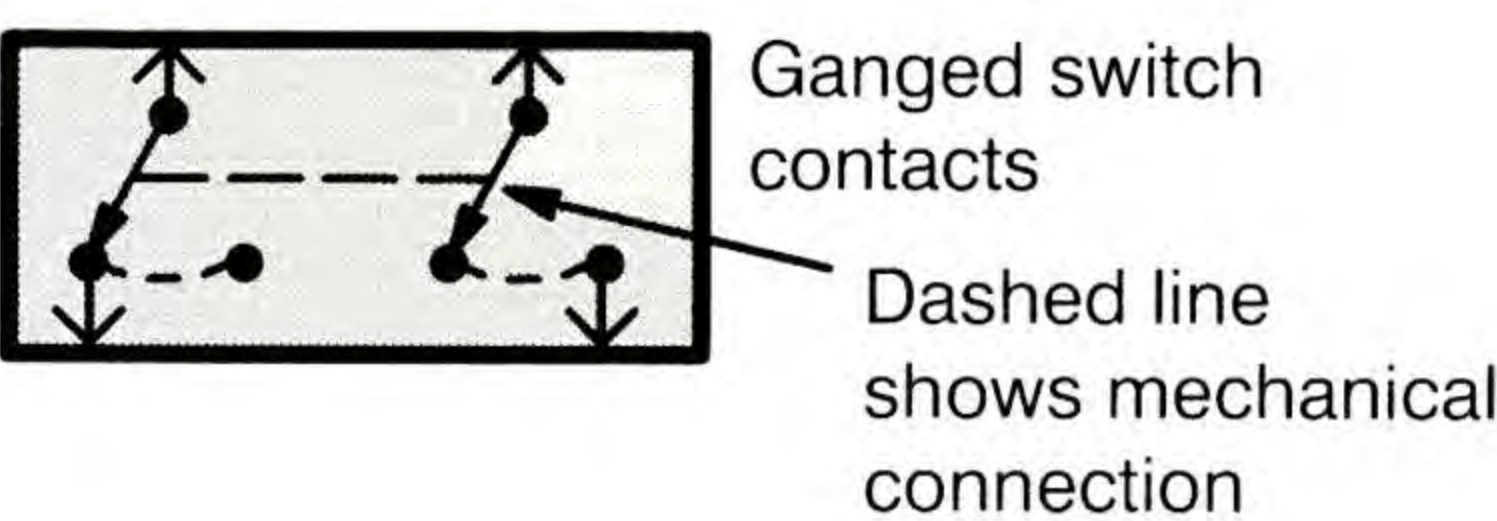
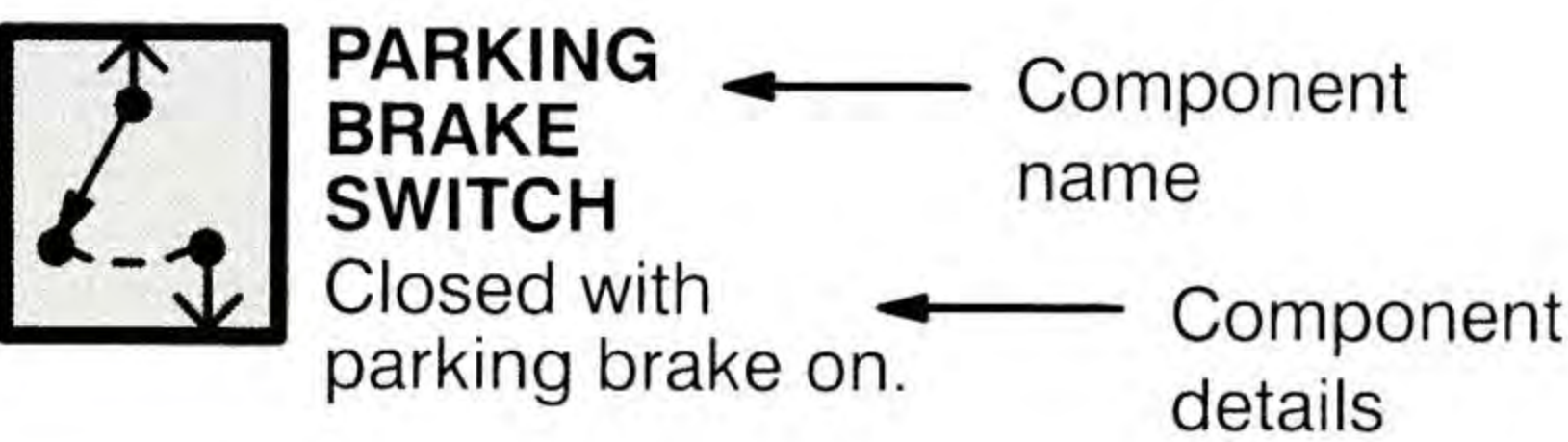
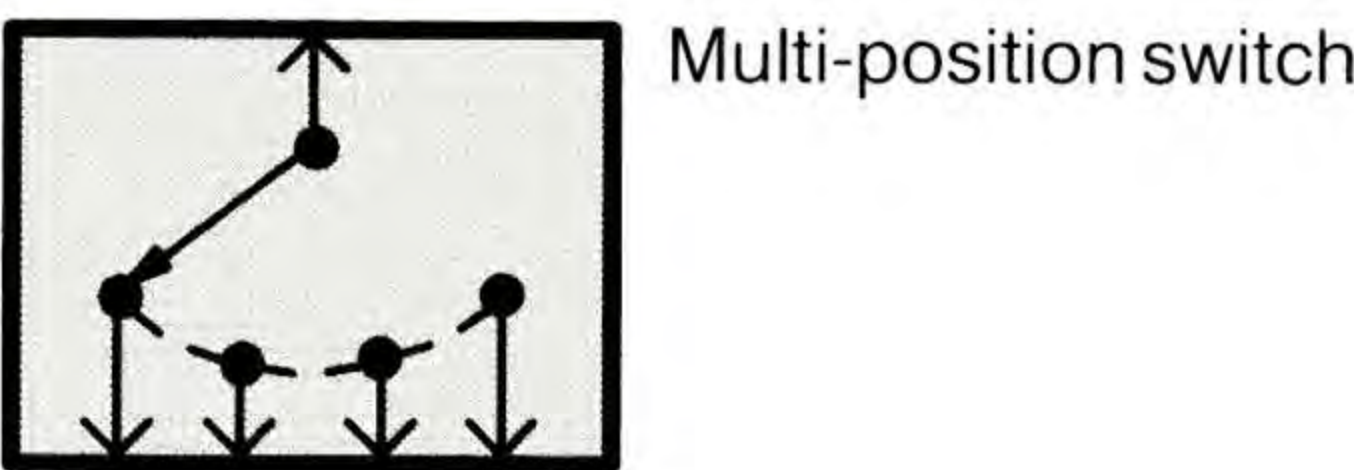
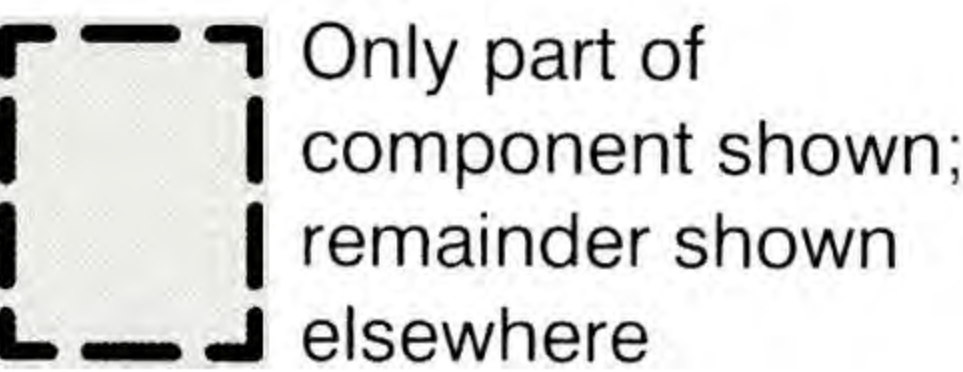
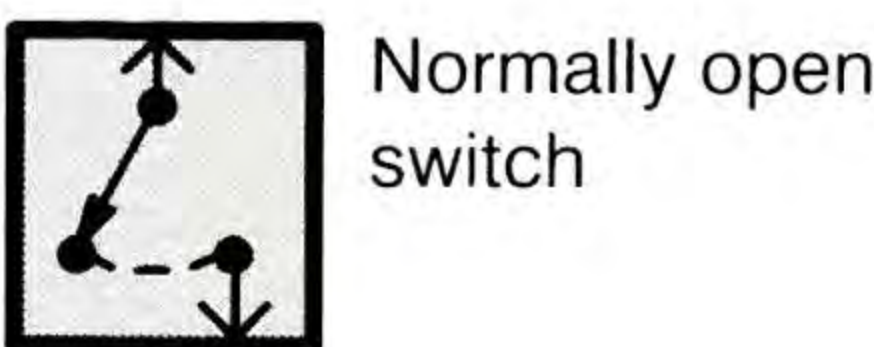
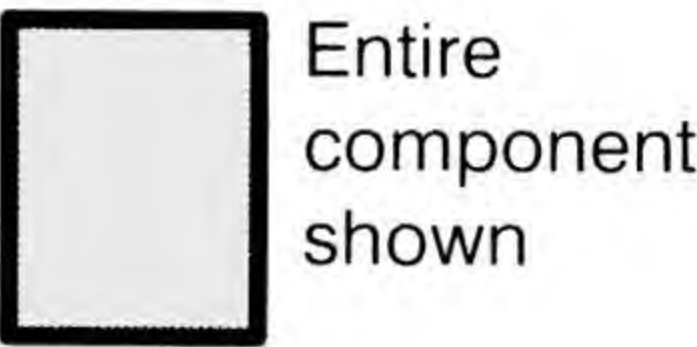
The **Component Location Index** helps you find where the parts of a circuit are located in a vehicle. A brief statement of the location is given and also a reference to a photograph that shows the component. These Component Location Photographs are in section 201. The index also lists the number of cavities within each connector and the connector color. Not all cavities will have wires.

The **Circuit Operation** will help you to understand the circuit. It describes the components and how the circuit works.

Page Numbering

This manual is organized into sections with most sections containing circuit details. Each section has a unique number that will normally remain the same, year after year. For example, the headlights circuit will be section 100 with the first page of the section numbered 100. The following pages of this section will be numbered 100-1, 100-2, and 100-3.

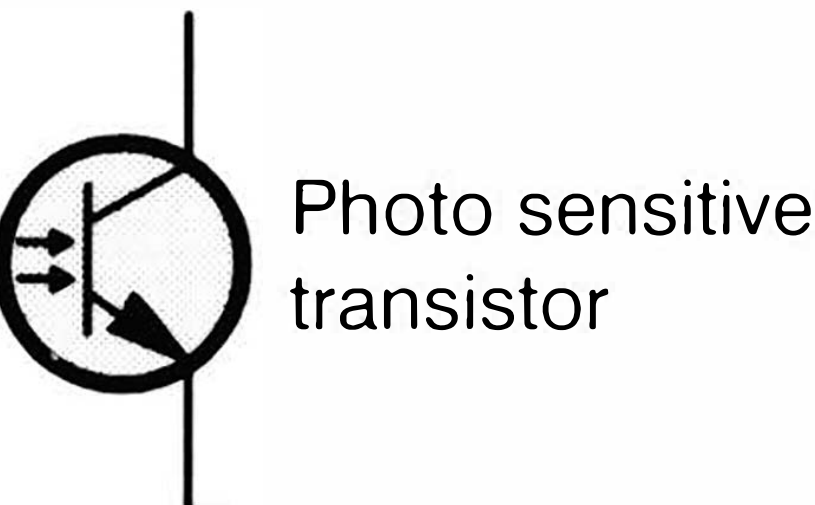
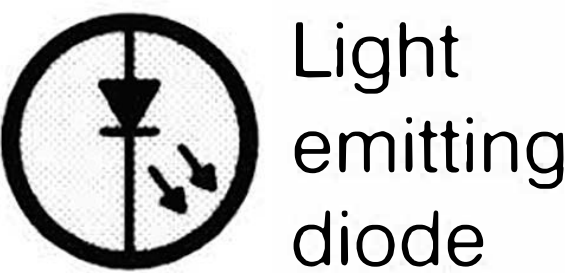
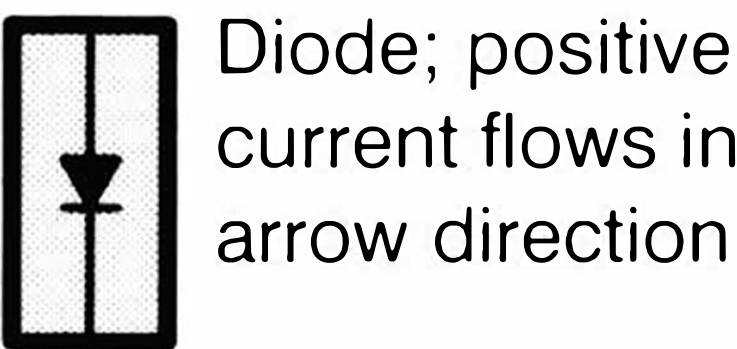
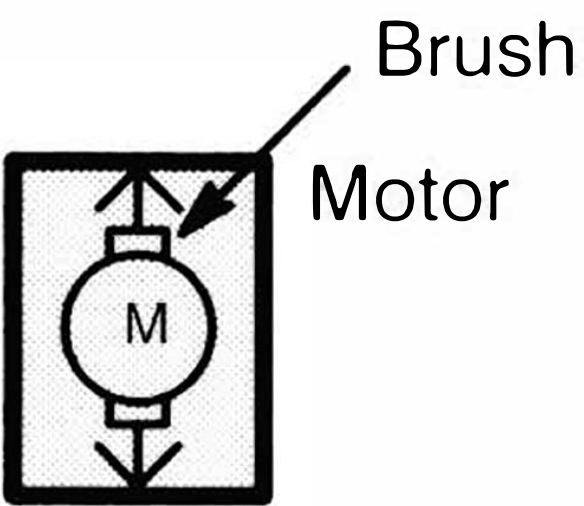
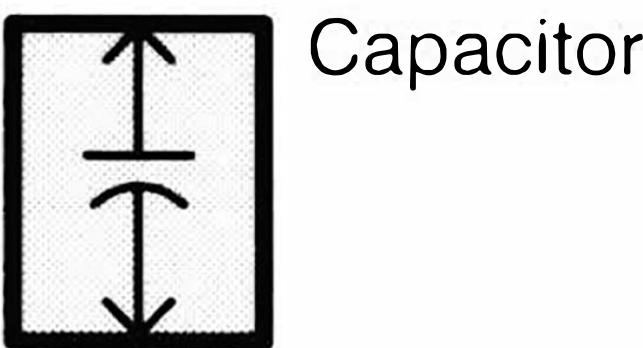
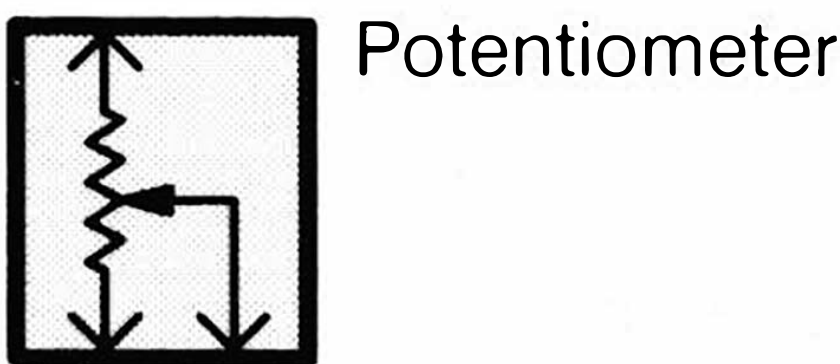
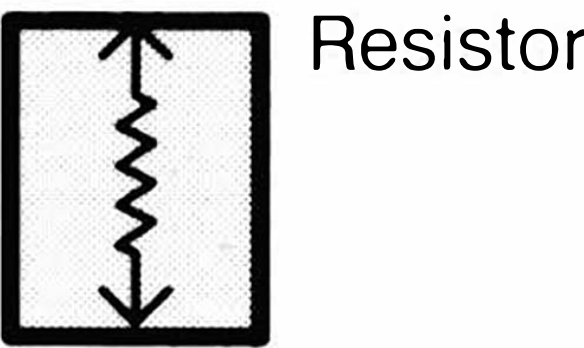
Symbols



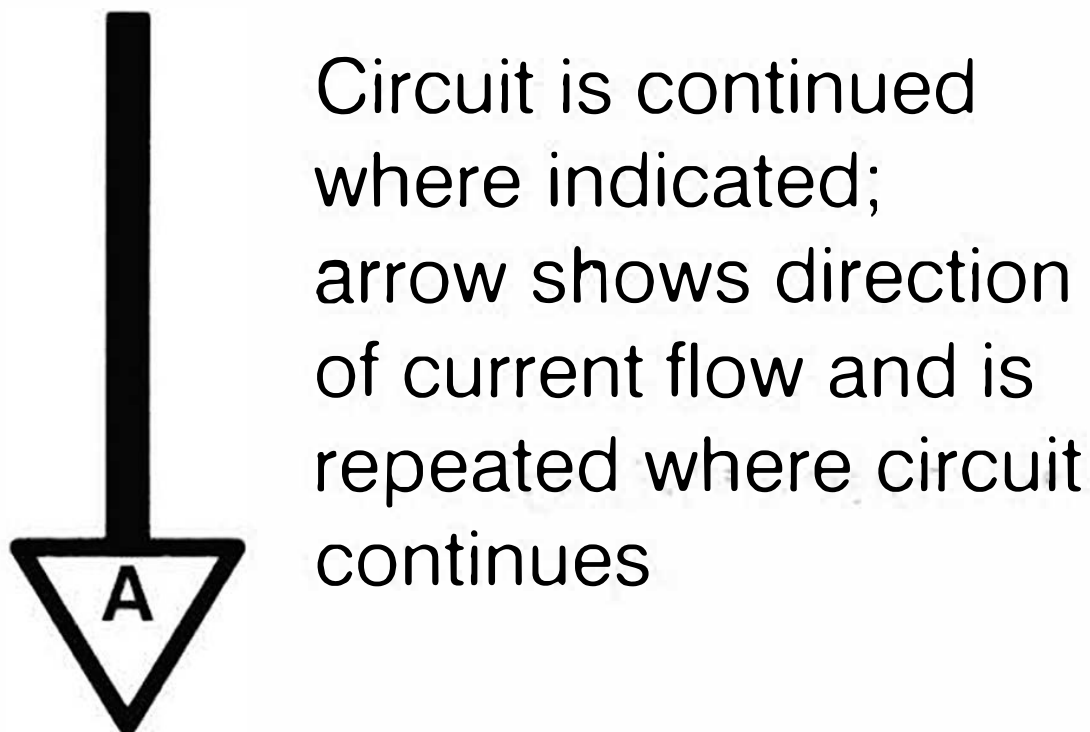
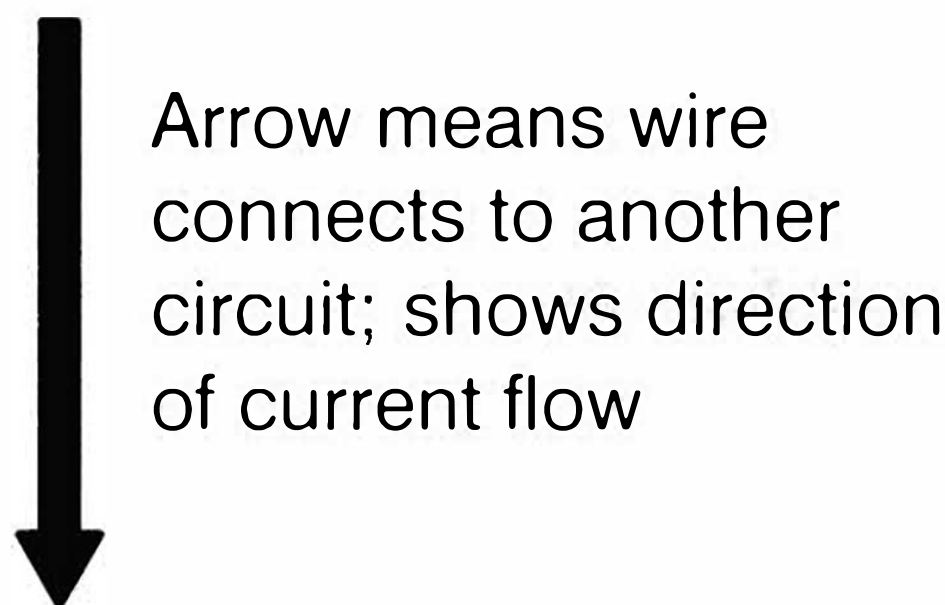
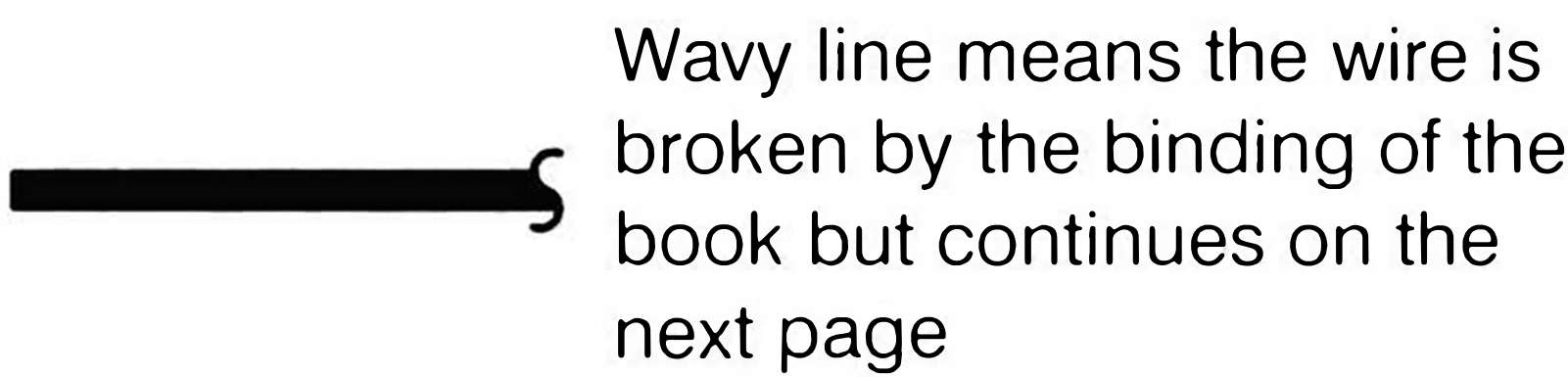
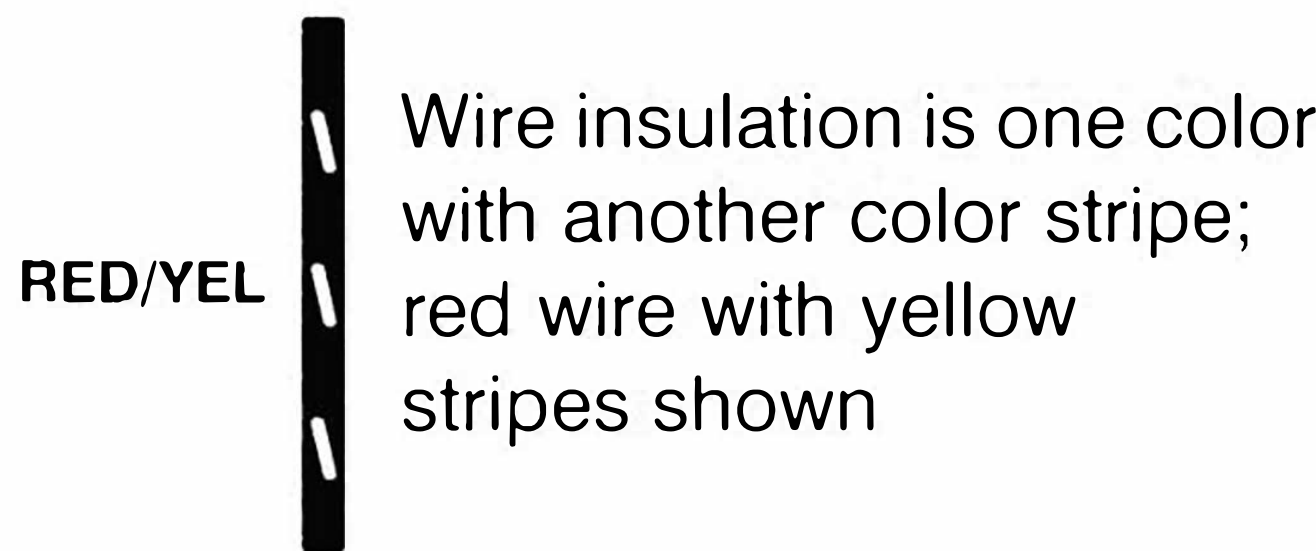
(cont'd)

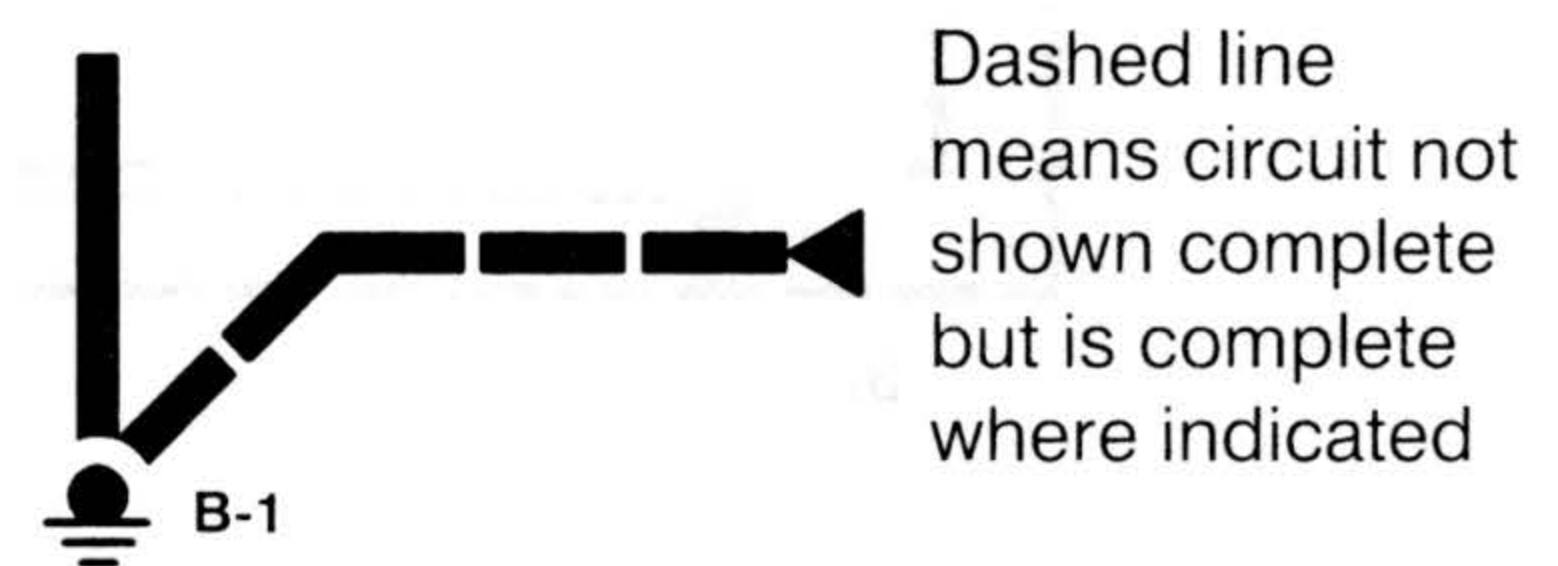
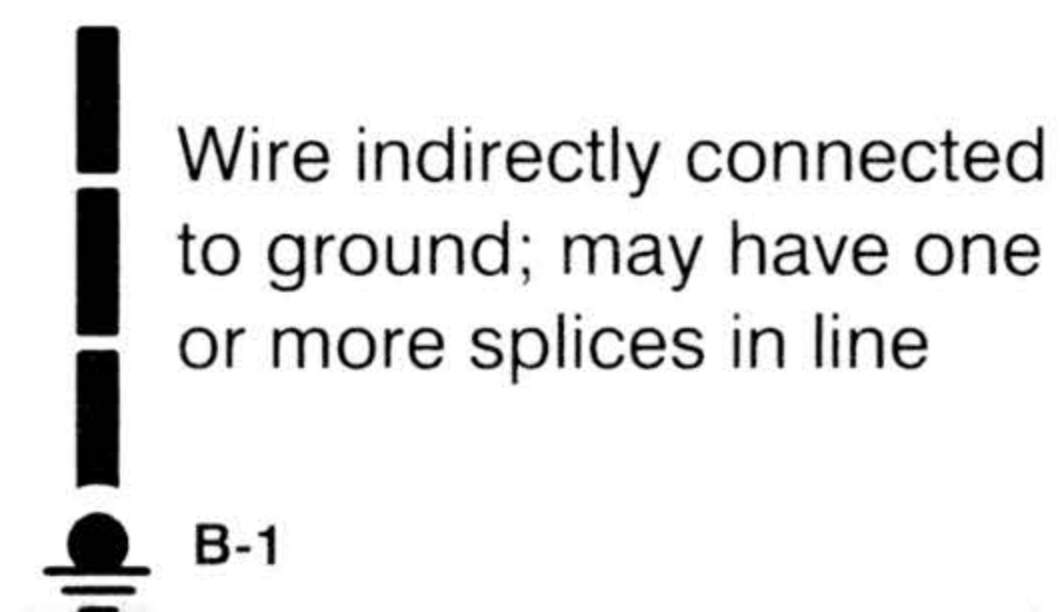
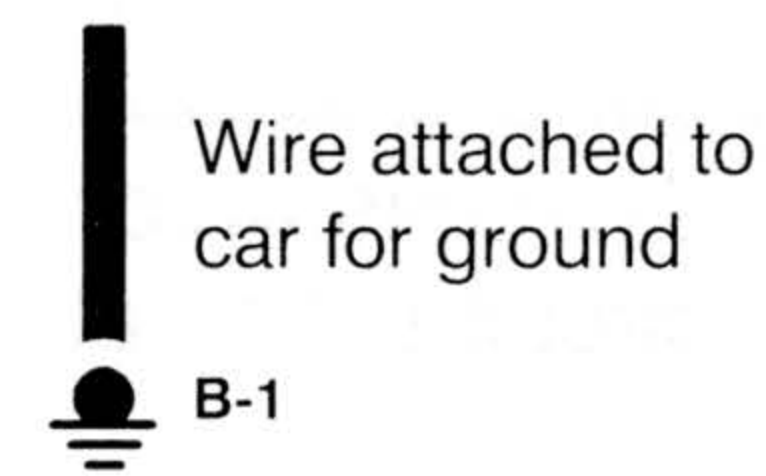
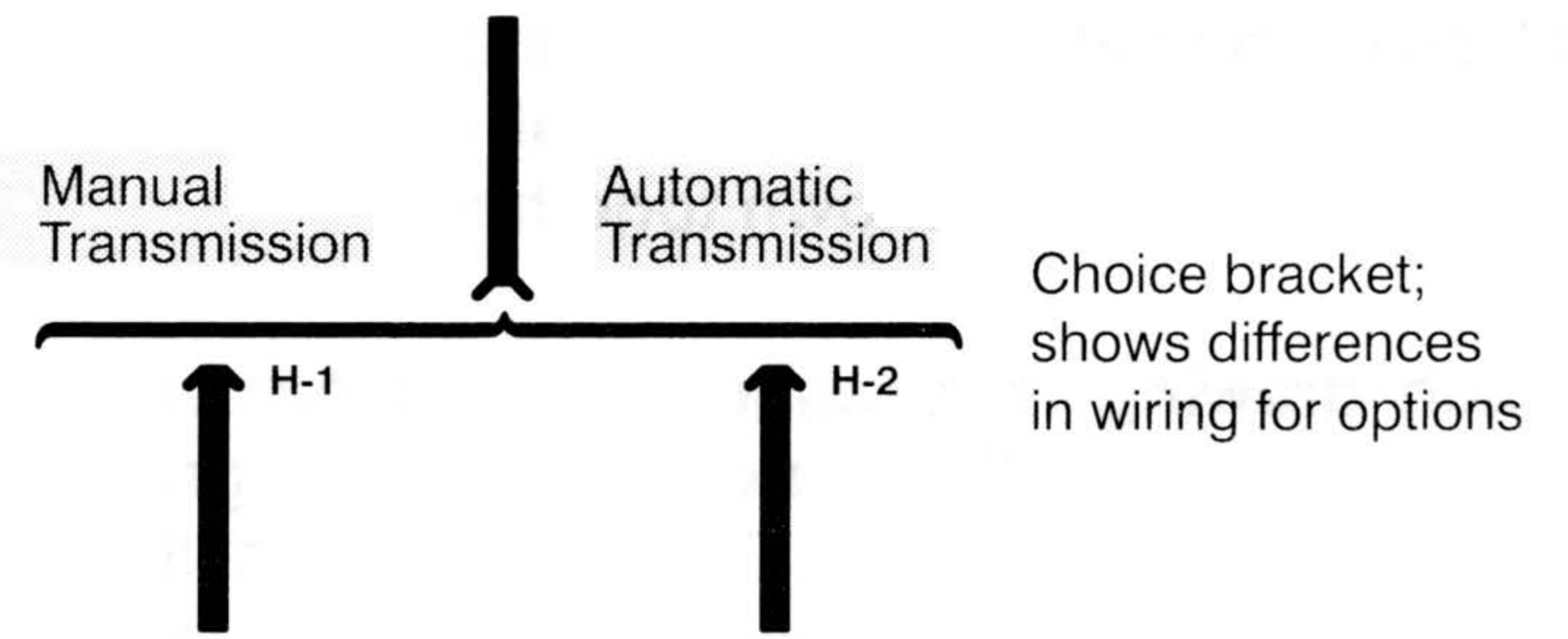
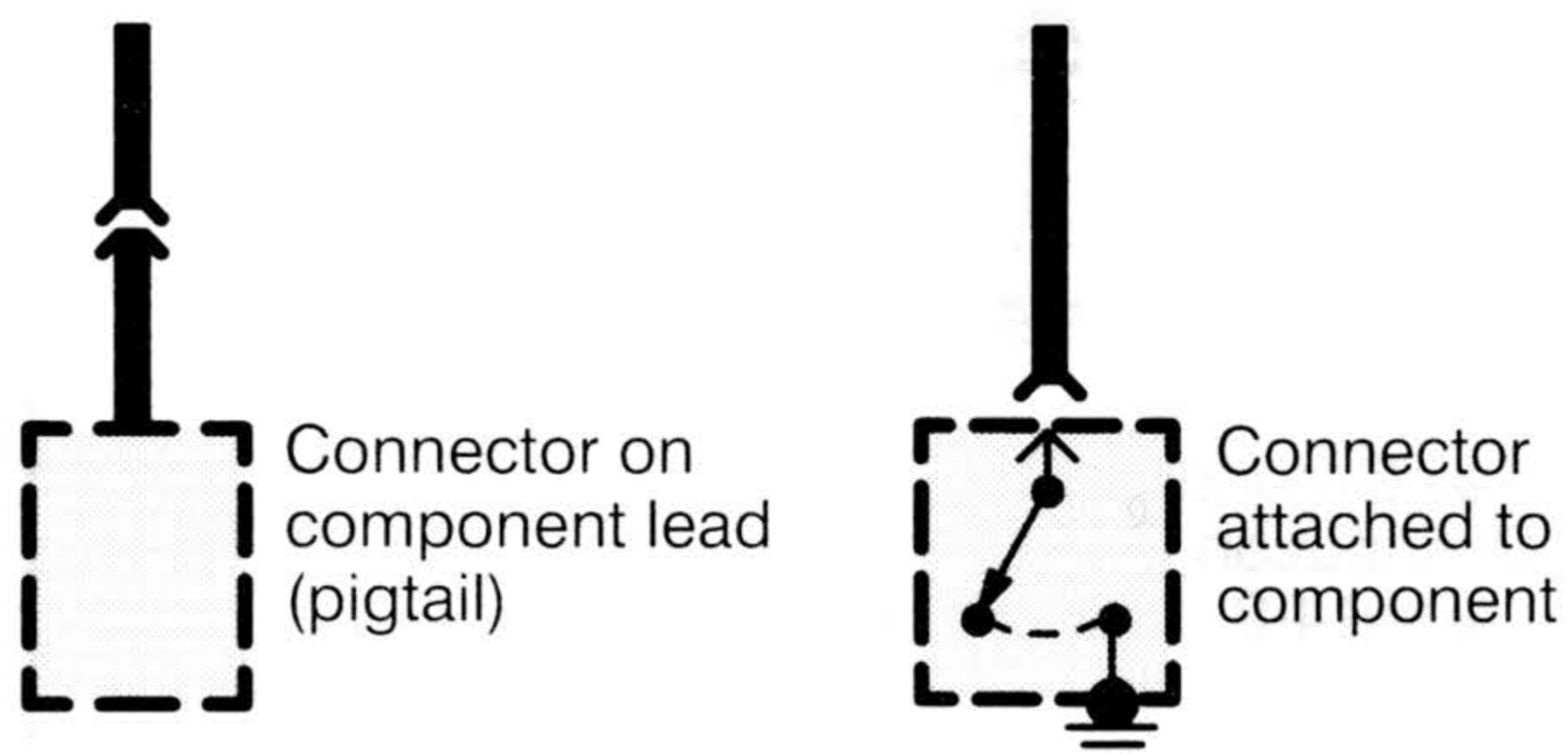
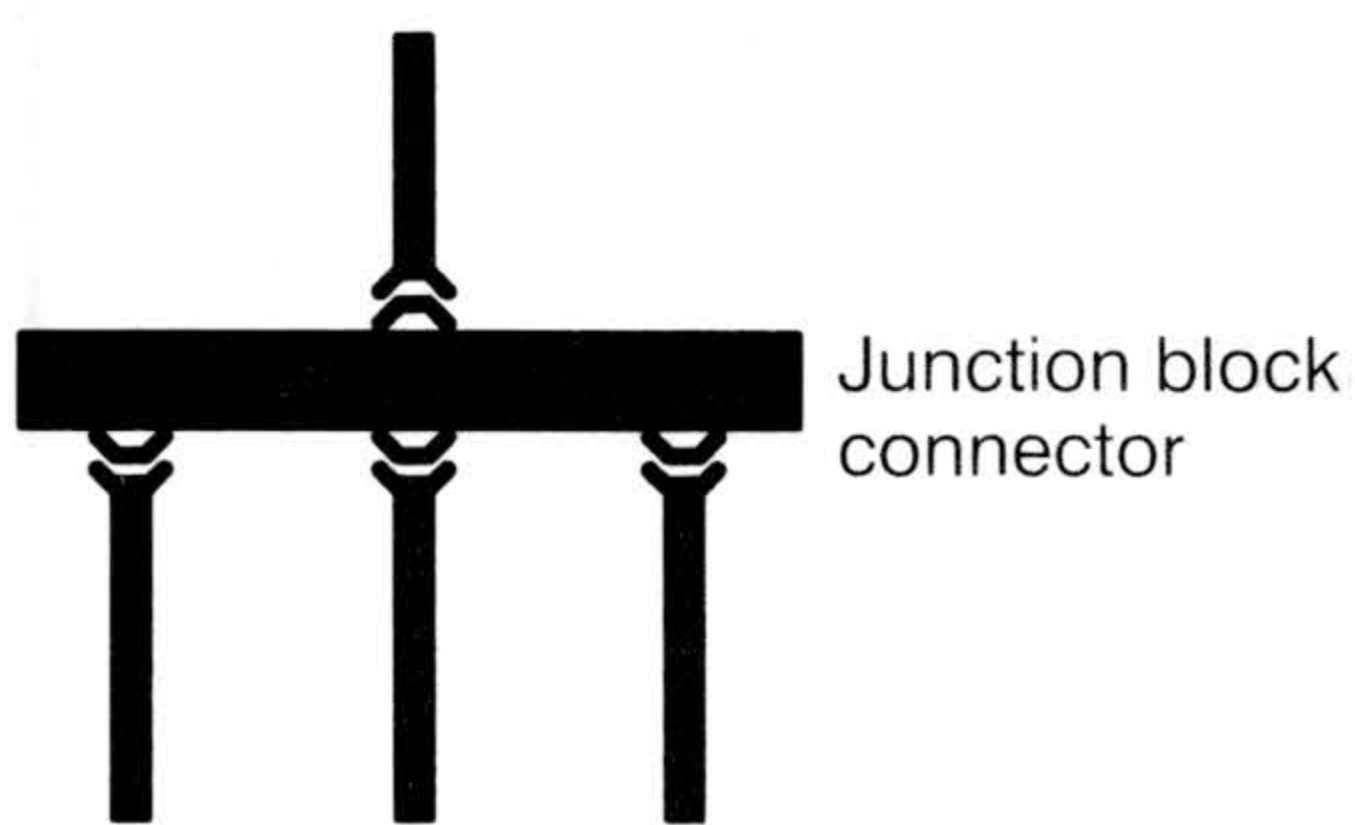
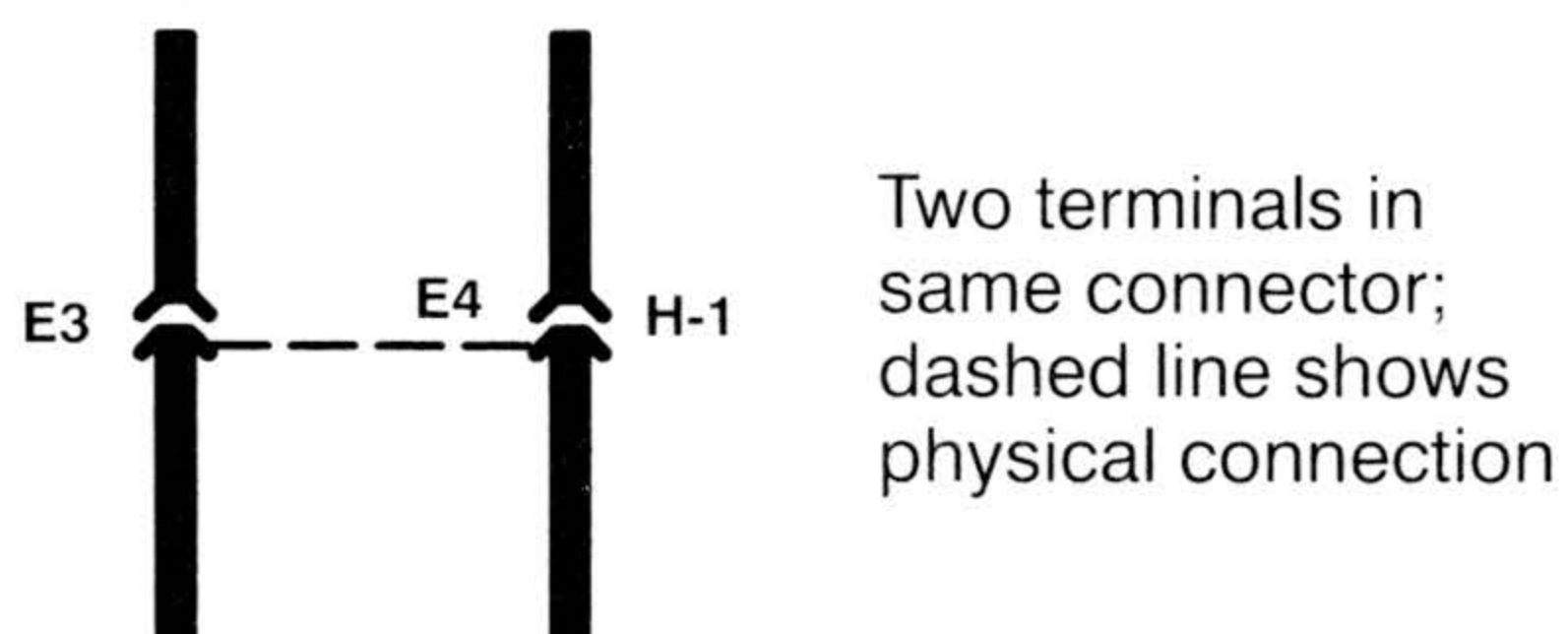
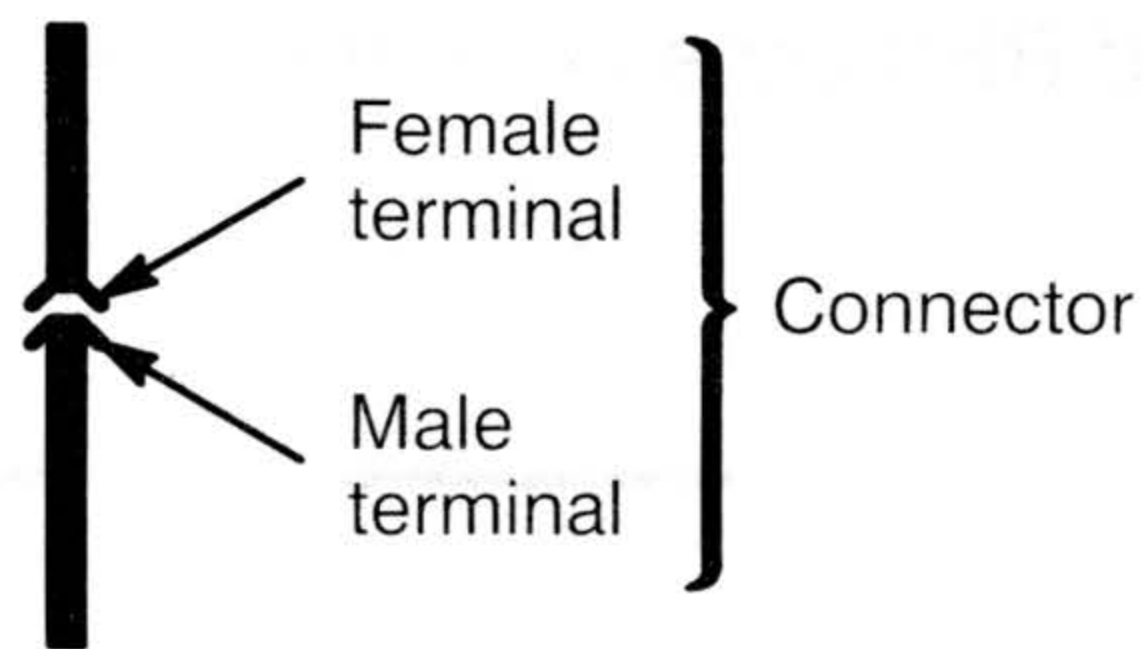
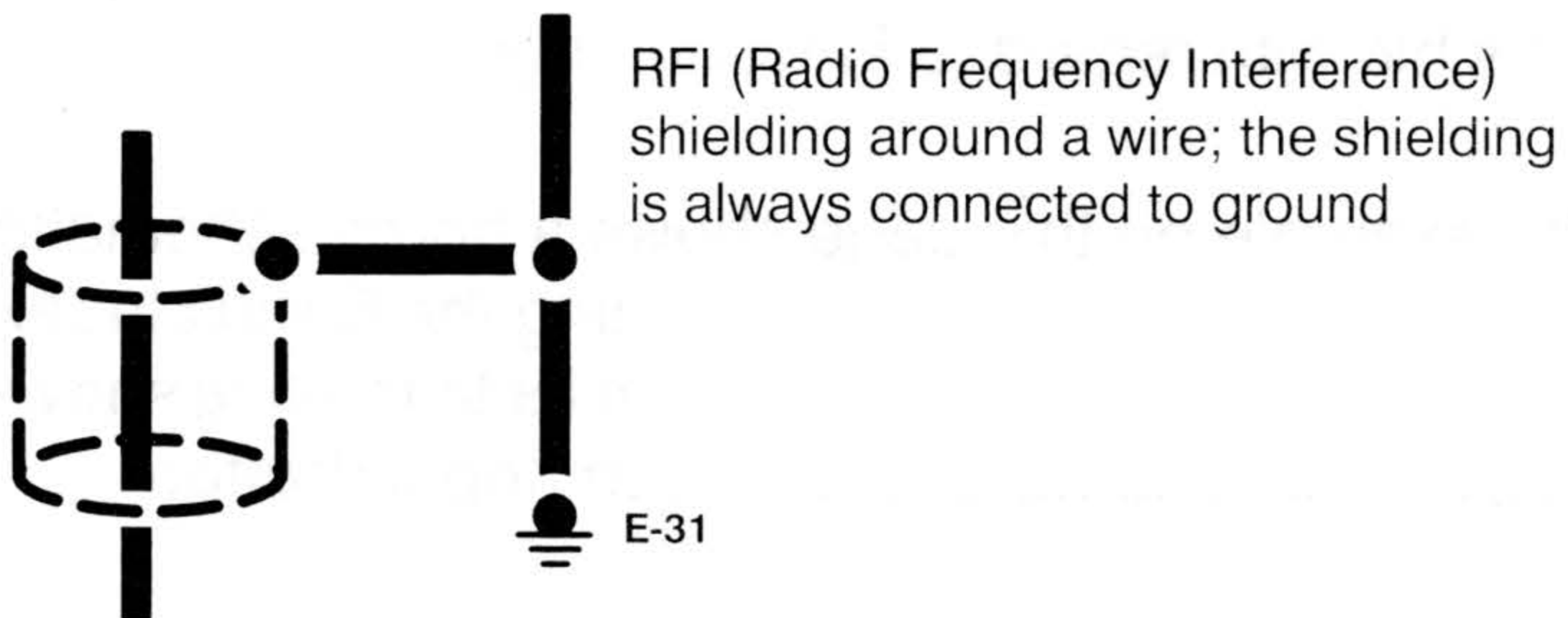
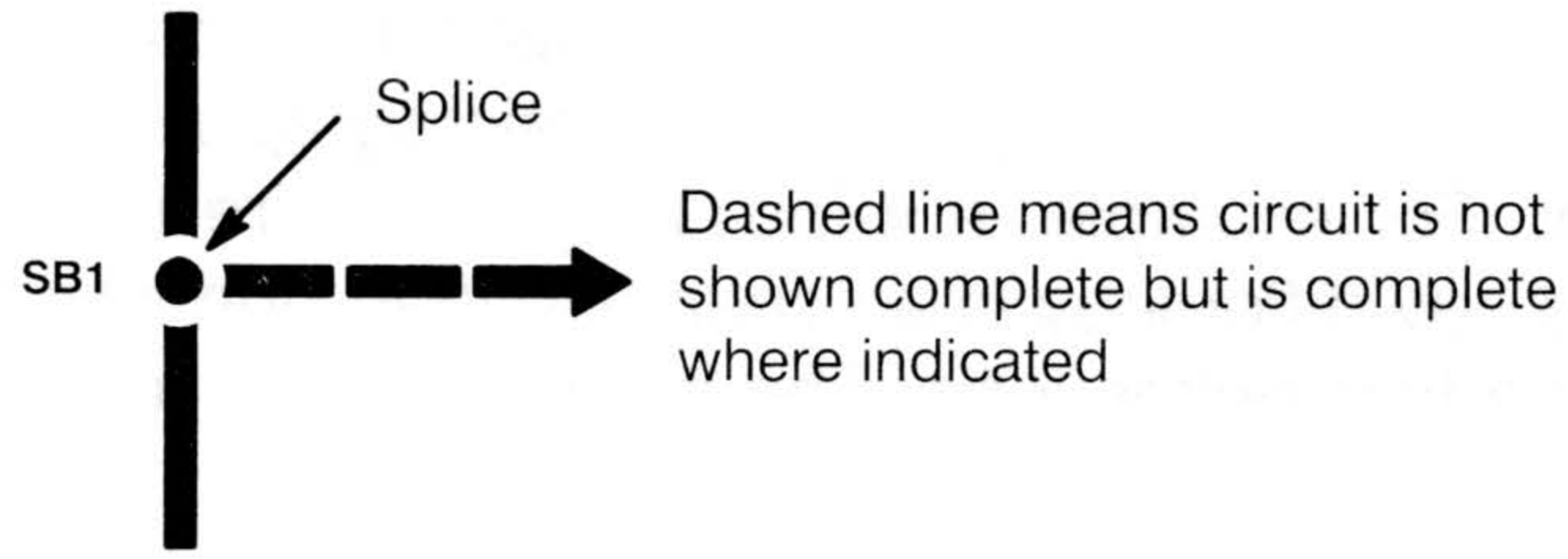
HOW TO USE THIS MANUAL

Symbols (cont'd)



BLK	black	Wire and connector colors
BLU	.....	blue
BRN	.....	brown
CLR	.....	clear
GRN	.....	green
GRY	.....	gray
LT BLU	.....	light blue
LT GRN	.....	light green
ORN	.....	orange
PNK	.....	pink
RED	.....	red
VIO	.....	violet
WHT	.....	white
YEL	.....	yellow





HOW TO USE THIS MANUAL

Circuit Schematics

Circuit schematics break the entire electrical system into individual circuits. **Electrical components that work together are shown together.**

Each drawing is arranged so that current flows from positive at the top of the page, to ground, at the bottom of the page. The "hot" labels at the top of a fuse show when the ignition switch supplies power to that fuse.

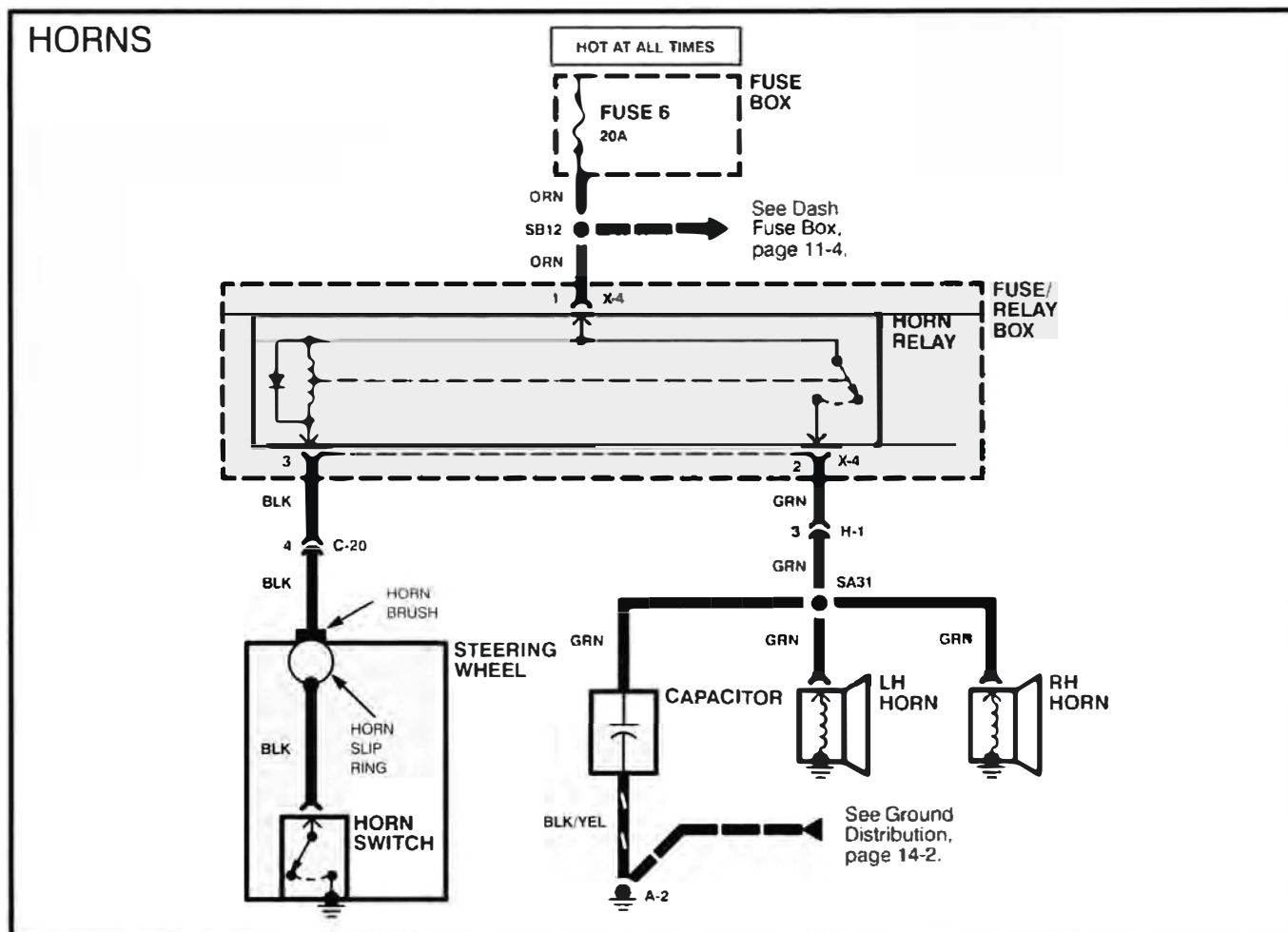
Wires that connect to another circuit are shown with an arrowhead pointing in the direction of current flow. The name of the circuit that shares wiring is provided for reference.

"See Dash Fuse Box" means that there are other connections to circuits that are not shown. These shared circuits are shown on the Dash Fuse Box circuit schematic. "See Ground Distribution" means that there are shared ground circuits which are shown on the Ground Distribution circuit schematic.

No attempt is made on the schematic to represent components and wiring as they physically appear on the car. For example, a 4-foot length of wire is not treated any differently in a schematic than one which is only a few inches long. The number of cavities for each connector is listed in the Component Location Index rather than being illustrated. Similarly, switches and other components are shown as simply as possible with regard to function only.

The example on this page shows a horns schematic. Locate the horn schematic by using the Circuit Index. The circuit schematic will look similar to the one shown below. The schematic is read from top to bottom.

Voltage is applied to the horn relay at all times. When the relay coil is grounded by closing the horn switch, the relay contacts close. When the relay contacts are closed, both the LH and RH horns are energized.

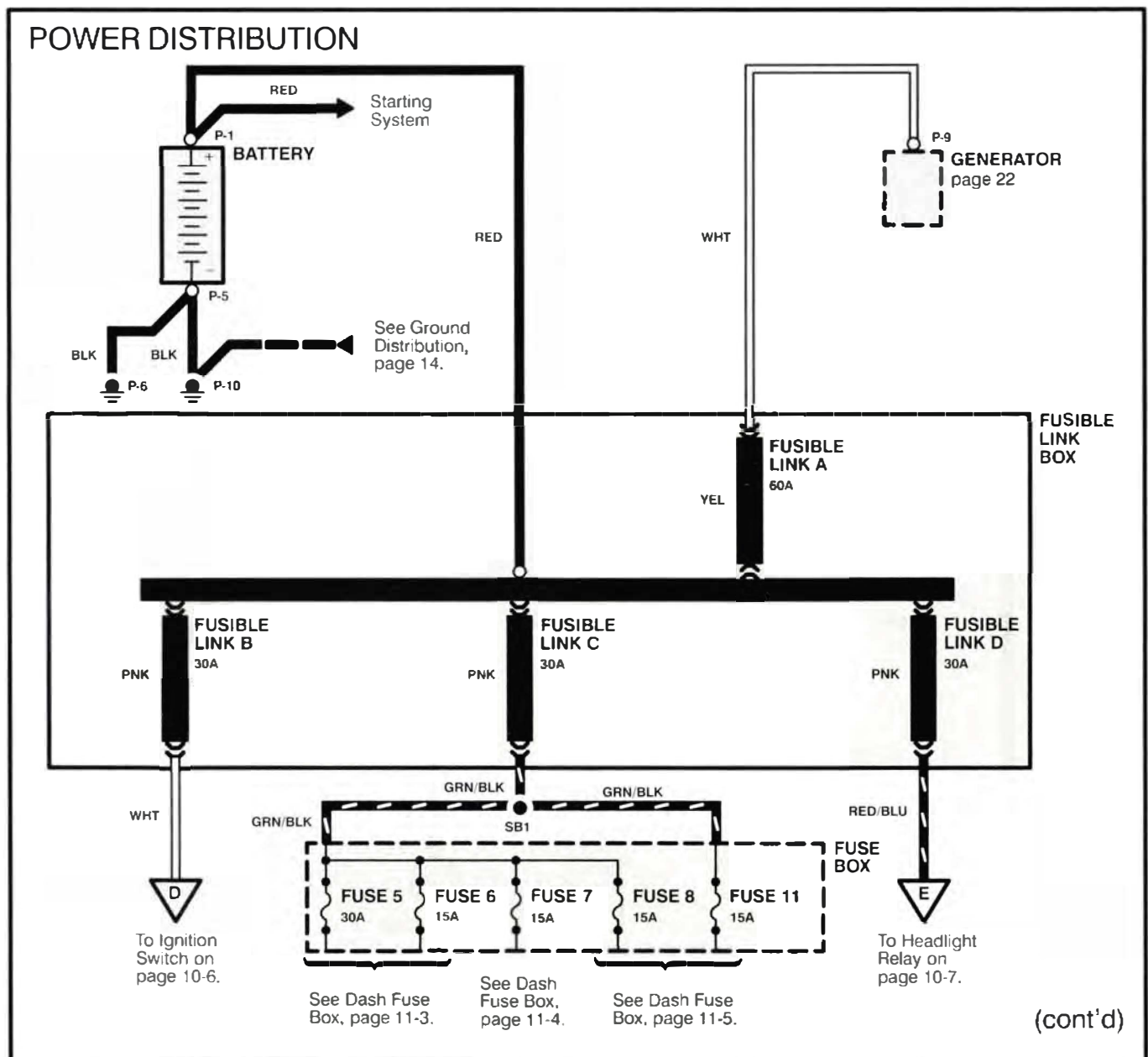


Power Distribution

The Power Distribution schematic shows the wiring from the battery and generator to the starter solenoid, fuse box, ignition switch and light switch. The first component after a fusible link is also shown. In certain instances, the first component after a fuse box fuse and light switch is also shown.

The Power Distribution schematic refers to Dash Fuse Box and Lighting Switch Details schematics. By using these three (3) schematics, power distribution wiring can be followed from the battery and generator to the first component after a fusible link, fuse, and light switch. The ability to follow the power distribution wiring to the first component in each circuit is extremely helpful in locating short circuits which cause fusible links and fuses to open.

The fuses in the schematic below are "Hot At All Times," since battery voltage is always applied to them.

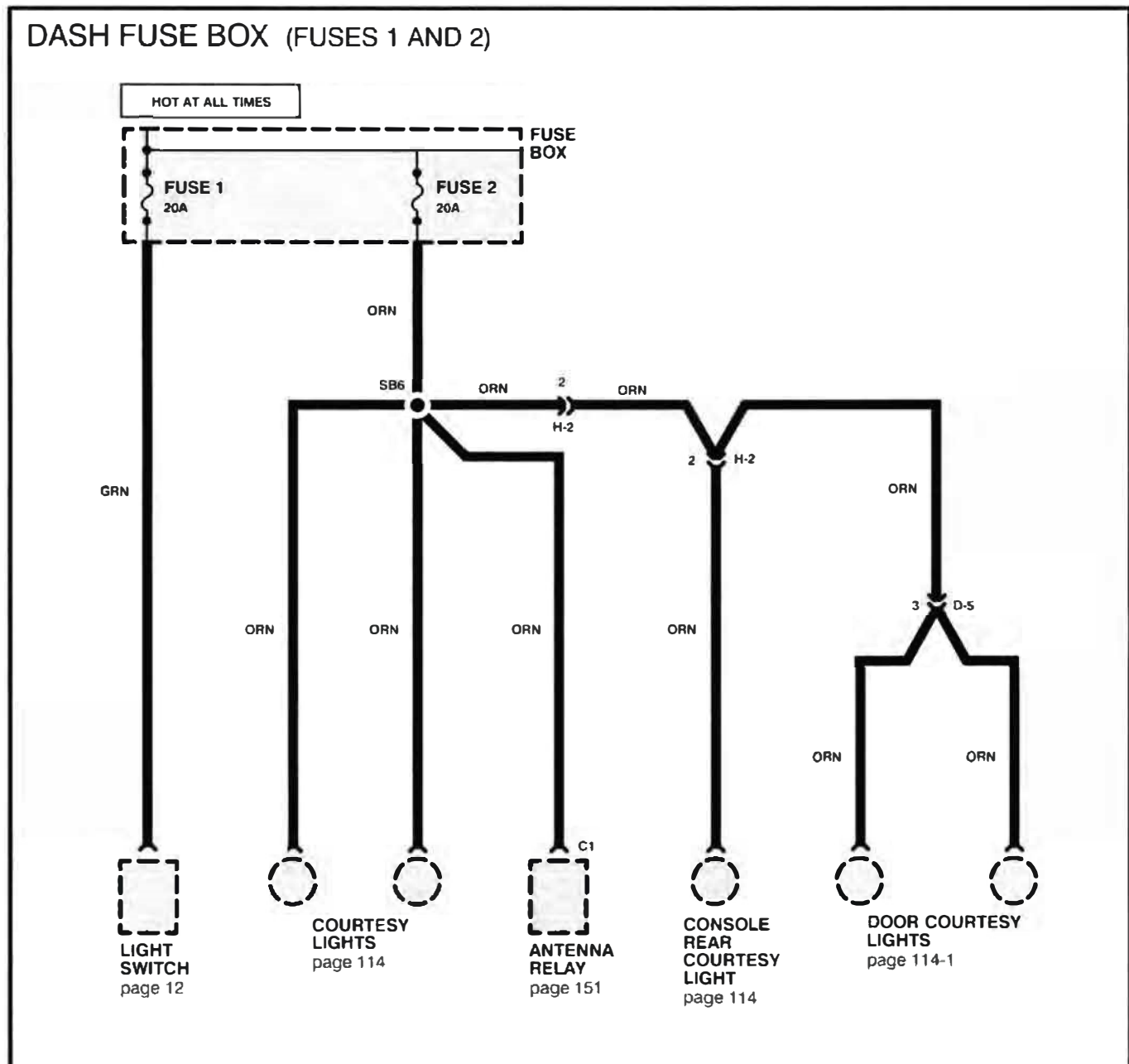


HOW TO USE THIS MANUAL

Circuit Schematics (cont'd)

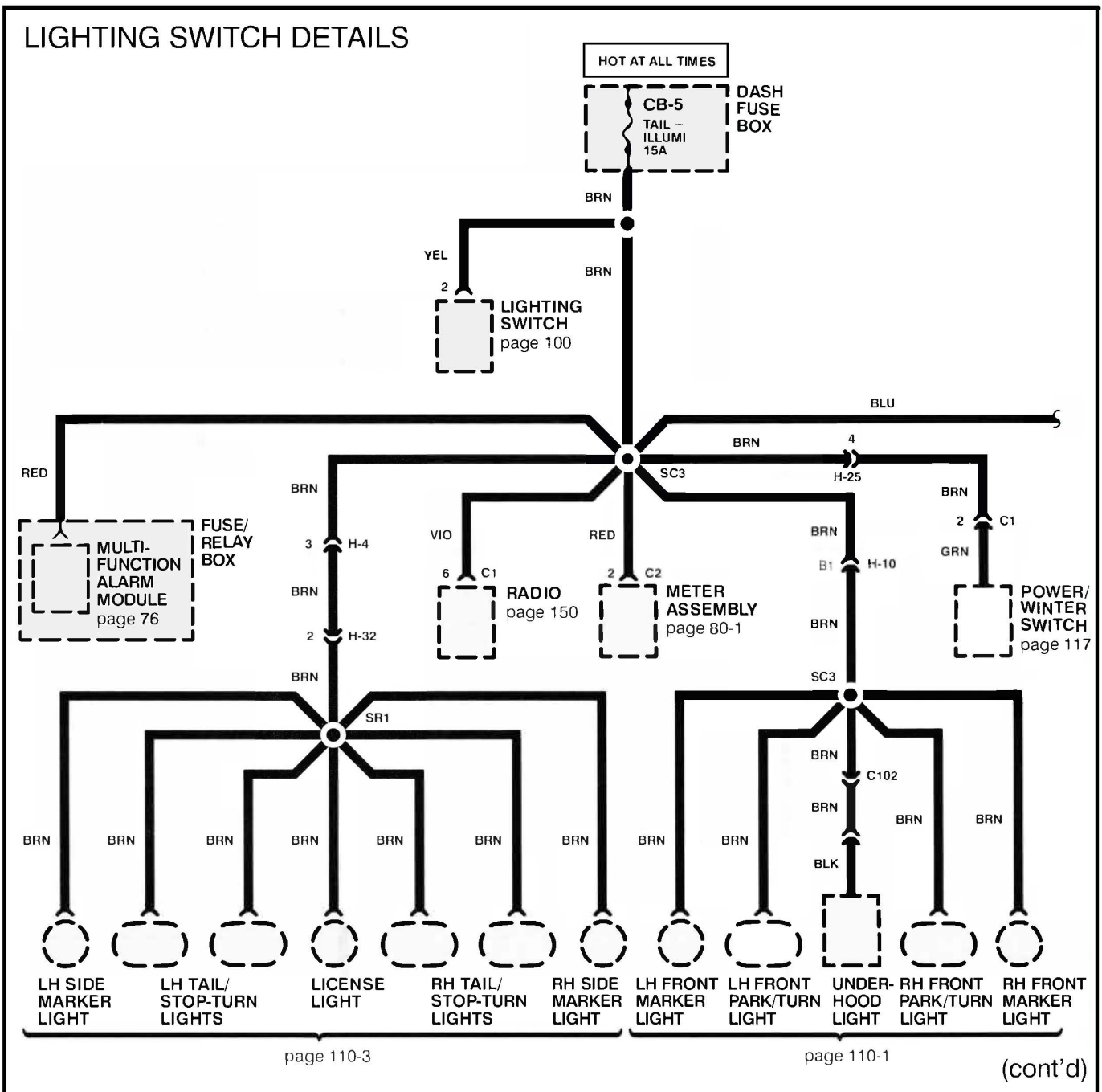
Dash Fuse Box

The Dash Fuse Box schematic shows all of the wiring between a fuse and the components connected to that fuse. The Dash Fuse Box schematic is helpful in locating a short circuit that causes a fuse to open. This schematic may aid in troubleshooting an inoperative circuit by showing a second circuit that uses the same fuse. If the second circuit works, then the fuse and certain wires of the inoperative circuit are good.



Lighting Switch Details

The Lighting Switch Details schematic shows all the wiring between the light switch, light relays, and the components connected to the output of the light switch and relays. The Lighting Switch Details schematic is helpful in locating a short circuit on the output side of the light switch and relays.



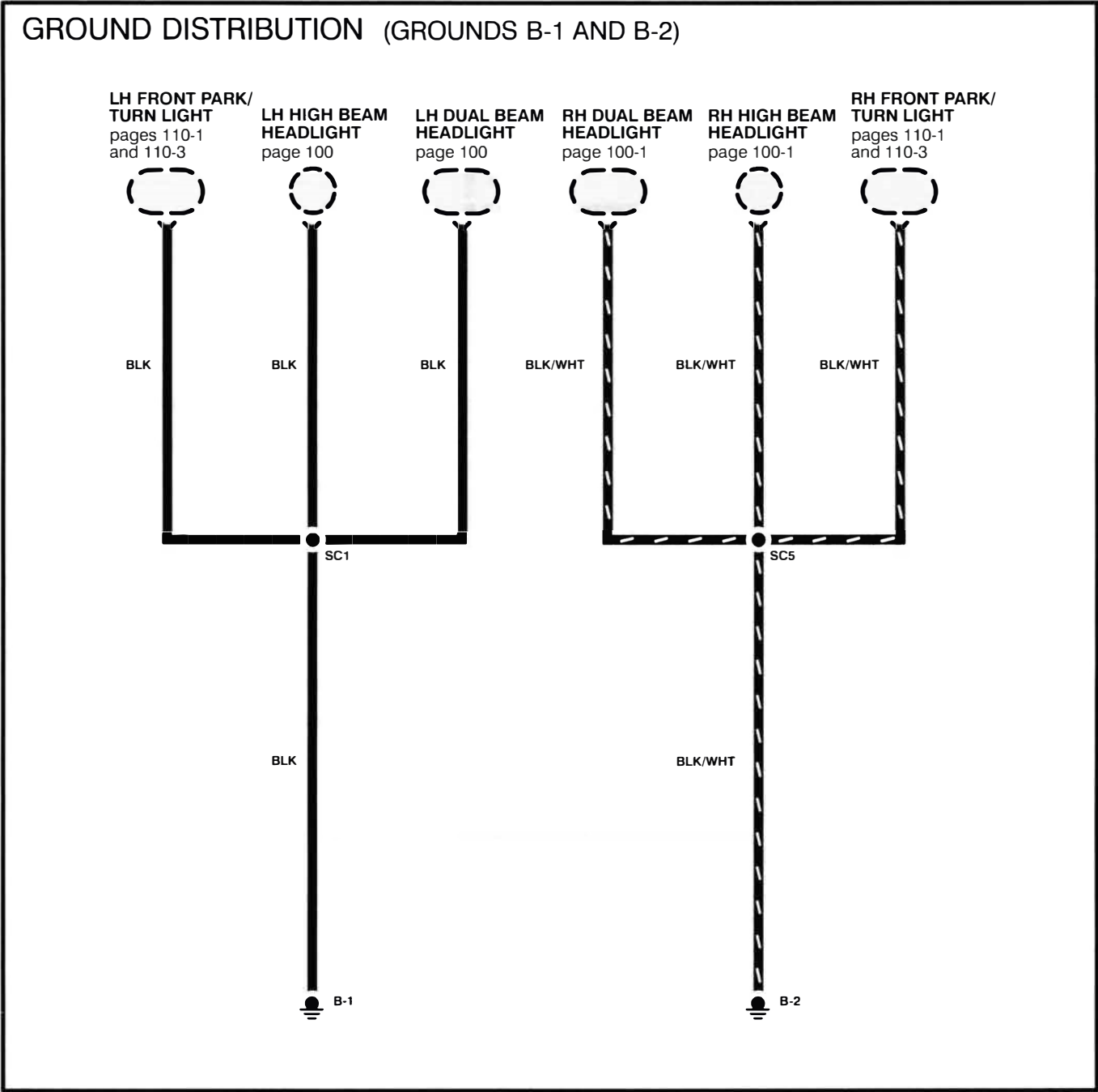
HOW TO USE THIS MANUAL

Circuit Schematics (cont'd)

Ground Distribution

The Ground Distribution schematics show which components share a ground point. This information can often be a time-saver when troubleshooting ground circuits. For example, in the schematic below, if both headlights and the park/turn light on one side

are all out, you could suspect an open in their common ground wire or the ground connection itself. On the other hand, if one of the lights works, you know that the ground and the wire up to the splice are good. You have learned this just by inspecting the schematic and knowing the vehicle's symptoms. No actual work on the lighting system is needed.



Component Location

A component location index follows each schematic. Except for the location of obvious components like left headlight, the index lists the location of every component, connector and ground in the schematic. The index also gives references to component location photographs located in section 201. The number of cavities in each connector and the connector color is also listed. Wires may not be used in all connector cavities.

Component Location Index

(Refer to Section 201 for photographs.)

Component		Photo No.
Fuse Box	Left side of dash, behind panel	81
Left Horn	Left side of engine compartment, below headlight	15
Right Horn	Right side of engine compartment, below headlight	17
<u>Connector</u>		
B-2 (13-WHT)	Under left side of dash, above left side of steering column	71
H-41 (16-GRN)	Under left side of dash, at kick panel	63
<u>Ground</u>		
C-39	Right rear corner of engine compartment	42

HOW TO USE THIS MANUAL

Five-Step Troubleshooting

The following five-step troubleshooting procedure is recommended:

1. Verify the Problem

Check the problem circuit's operation to be sure you understand what's wrong. Do not begin disassembly or testing until you have narrowed down the possible causes.

If the system you are troubleshooting has a built-in self-diagnostic system, refer to the appropriate section of the Service Manual.

2. Analyze the Circuit Schematic

Analyze the schematic. Read the Circuit Operation text if you do not understand how the circuit *should* work. Check circuits that share the wiring with the problem circuit. The names of circuits that share the same fuse, ground, switch, etc., are included on each electrical schematic. Shared circuits are also shown on Power Distribution, Ground Distribution, Dash Fuse Box, and Lighting Switch Details pages. Try to operate the shared circuits. If these circuits work, then the shared wiring is OK. The cause must be within the wiring used only by the problem circuit. If several circuits fail at the same time, chances are the power (fuse) or ground circuit is faulty.

3. Find the Cause

- narrow down the possible causes
- use the troubleshooting hints
- make the necessary measurements as given in the troubleshooting procedures
- before you replace a component, check power, signal, and ground wires at the component harness connector

4. Repair the Problem

Once the specific problem is identified, make the repair. Be sure to use proper tools and always observe safe procedures.

5. Check the Repair

Check the repaired circuit's operation in all modes to make sure that you've fixed the entire problem. If the problem was a blown fuse, test all circuits on that fuse. Make sure that no new problems turn up.

Test Equipment

Voltmeter and Test Light

Use a voltmeter or test light to check for voltage. While a test light shows whether or not voltage is present, a voltmeter indicates how much voltage there is.

CAUTION: A number of circuits include solid state devices. Voltages in these circuits should be tested only with a 10-megohm or higher impedance digital multimeter. Never use a test light on circuits that contain solid-state devices. Damage to the device may result.

On circuits without solid-state devices, a test light may be used to check for voltage. A test light is made up of a 12-volt bulb with a pair of leads attached. After grounding one lead, touch the other lead to various points along the circuit where voltage should be present. The bulb will go on if the voltage at the point being tested is greater than 5 volts.

Self-Powered Test Light and Ohmmeter

Use a self-powered test light or ohmmeter to check for continuity. The ohmmeter shows how much resistance there is between two points along a circuit. Low resistance means good continuity.

CAUTION: Never use a self-powered test light on circuits that contain solid-state devices. Damage to these devices may result.

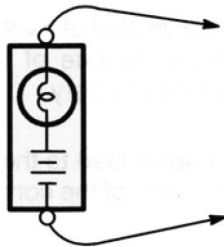
Diodes and solid-state devices in a circuit can make an ohmmeter give a false reading. To find out if a component is affecting a measurement, take one reading, reverse the leads, and take a second reading. If the readings differ, the component is affecting the measurement.

Circuits that contain solid-state devices should only be tested with a 10-megaohm or higher impedance digital multimeter.

Troubleshooting Tests

A self-powered test light consists of a light bulb, battery and two leads. If the leads are touched together, the bulb will go on.

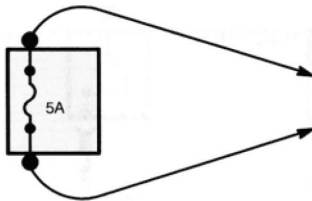
Self-Powered Test Light



A self-powered test light is only used on an un-powered circuit. First disconnect the battery or remove the fuse that feeds the circuit you are working on. Select two points along the circuit through which there should have continuity. Connect one lead of the self-powered test light to each point. If there is continuity, the test light's circuit will be completed and the bulb will go on.

Fused Jumper Wire

Use a jumper wire to bypass an open circuit. A jumper wire is made up of an in-line fuse holder connected to a set of test leads. It should have a five ampere fuse. Never use a jumper wire across any load. This direct battery short will blow the fuse.



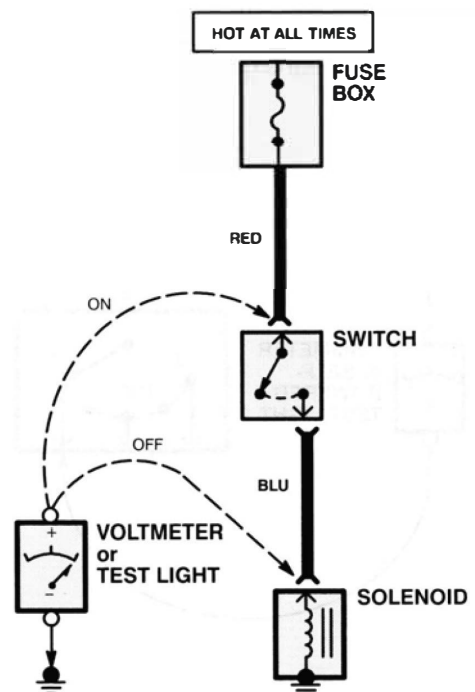
Short Finder

Short finders are available to locate shorts to ground. The short finder creates a pulsing magnetic field in the shorted circuit and shows you the location of the short through body trim or sheet metal. Its use is explained in the following troubleshooting tests.

Testing For Voltage

This test measures voltage in a circuit. When testing for voltage at a connector, you may not have to separate the two halves of the connector. Instead, probe the connector from the back. Always check both sides of the connector because dirt and corrosion between its contact surfaces can cause electrical problems.

1. Connect one lead of test light to known good ground, or if you are using a voltmeter, be sure you connect its negative lead to ground.
2. Connect the other lead of the test light or voltmeter to the point you want to check.
3. If the test light glows, there is voltage present. If you are using a voltmeter, note the voltage reading. It should be within one volt of measured battery voltage. A loss of more than one volt indicates a problem.



(cont'd)

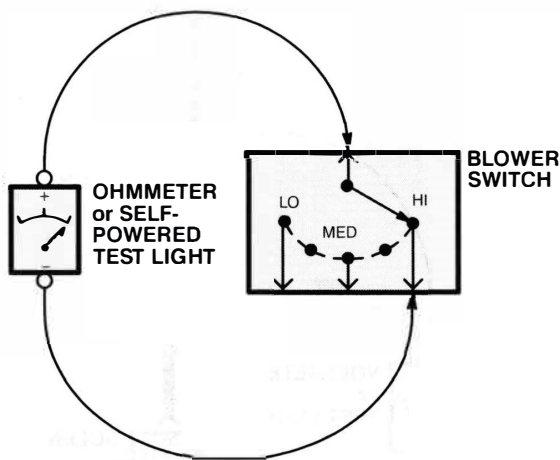
HOW TO USE THIS MANUAL

Troubleshooting Tests (cont'd)

Testing For Continuity

This test checks for continuity within a circuit. When testing for continuity at a connector, you may not have to separate the two halves of the connector. Instead, probe the connector from the back. Always check both sides of the connector because dirt and corrosion between contact surfaces can cause electrical problems.

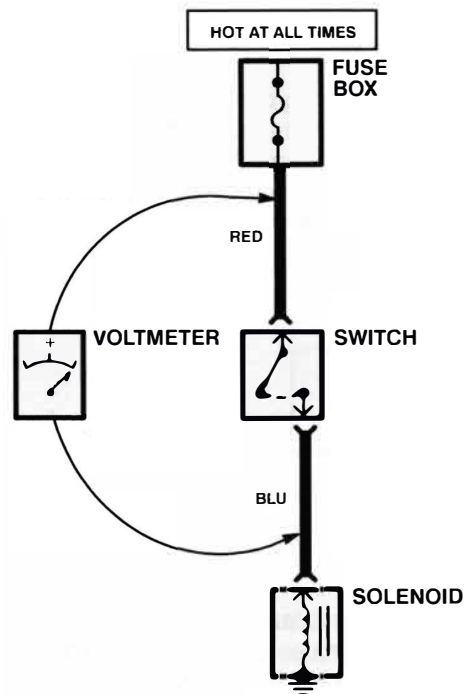
1. Disconnect the negative cable from the car battery.
2. If you are using an ohmmeter, hold the leads together and adjust the ohmmeter to read zero ohms.
3. Connect one lead of self-powered test light or ohmmeter to one end of the part of the circuit you wish to test.
4. Connect the other lead to the other end.
5. If the self-powered test light glows, there is continuity. If you're using an ohmmeter, low or no resistance means good continuity.



Testing For Voltage Drop

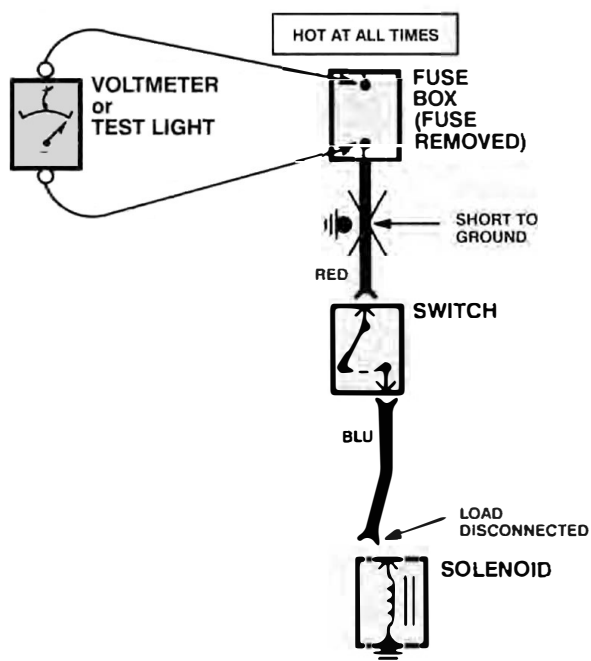
This test checks for voltage drop along a wire, or through a connection or switch.

1. Connect the positive lead of a voltmeter to the end of the wire (or to the side of the connector or switch) closest to the battery.
2. Connect the negative lead to the other end of the wire (or the other side of the connector or switch).
3. Operate the circuit.
4. The voltmeter will show the difference in voltage between the two points. A difference, or drop of more than 0.5 volts may indicate a problem. Check the circuit for loose or dirty connections.



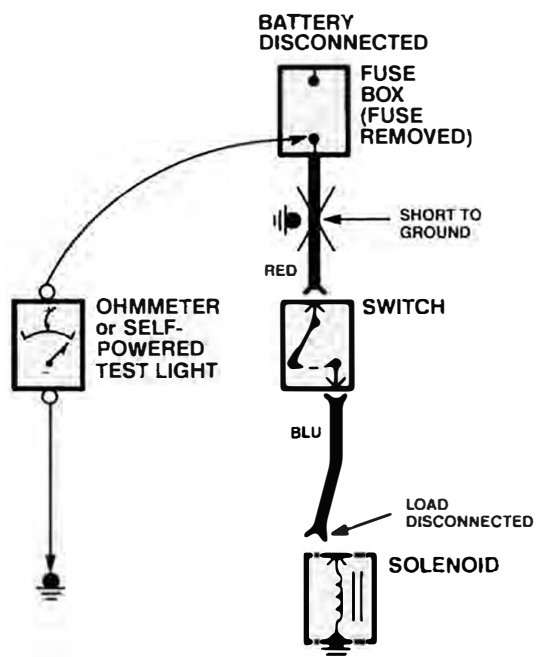
Testing For A Short To Ground With A Test Light Or Voltmeter

1. Remove the blown fuse and disconnect the load.
2. Connect a test light or voltmeter across the fuse terminals. Make sure voltage is being applied to the battery side fuse terminal. Check schematic to see if the ignition switch needs to be in RUN.
3. Beginning near the fuse box, wiggle the harness. Continue this at convenient points about six inches apart while watching the test light or voltmeter.
4. When the test light blinks or the voltmeter needle moves, there is a short to ground in the wiring near that point.



Testing For A Short To Ground With A Self-Powered Test Light Or Ohmmeter

1. Remove the blown fuse and disconnect the battery and load.
2. Connect one lead of a self-powered test light or ohmmeter to the fuse terminal load side.
3. Connect the other lead to a known good ground.
4. Beginning near the fuse box, wiggle the harness. Continue this at convenient points about six inches apart while watching the test light or ohmmeter.
5. If the self-powered test light blinks or the ohmmeter needle moves, there is a short to ground in the wiring near that point.



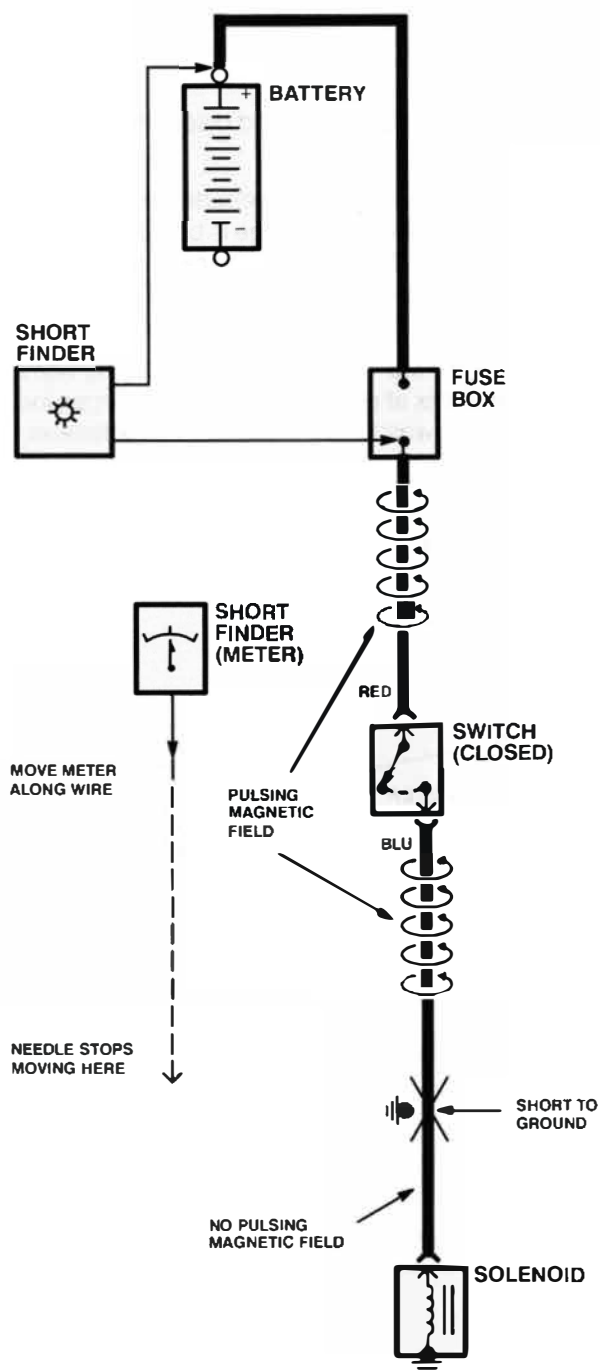
(cont'd)

HOW TO USE THIS MANUAL

Troubleshooting Tests (cont'd)

Testing For A Short To Ground With A Short Finder

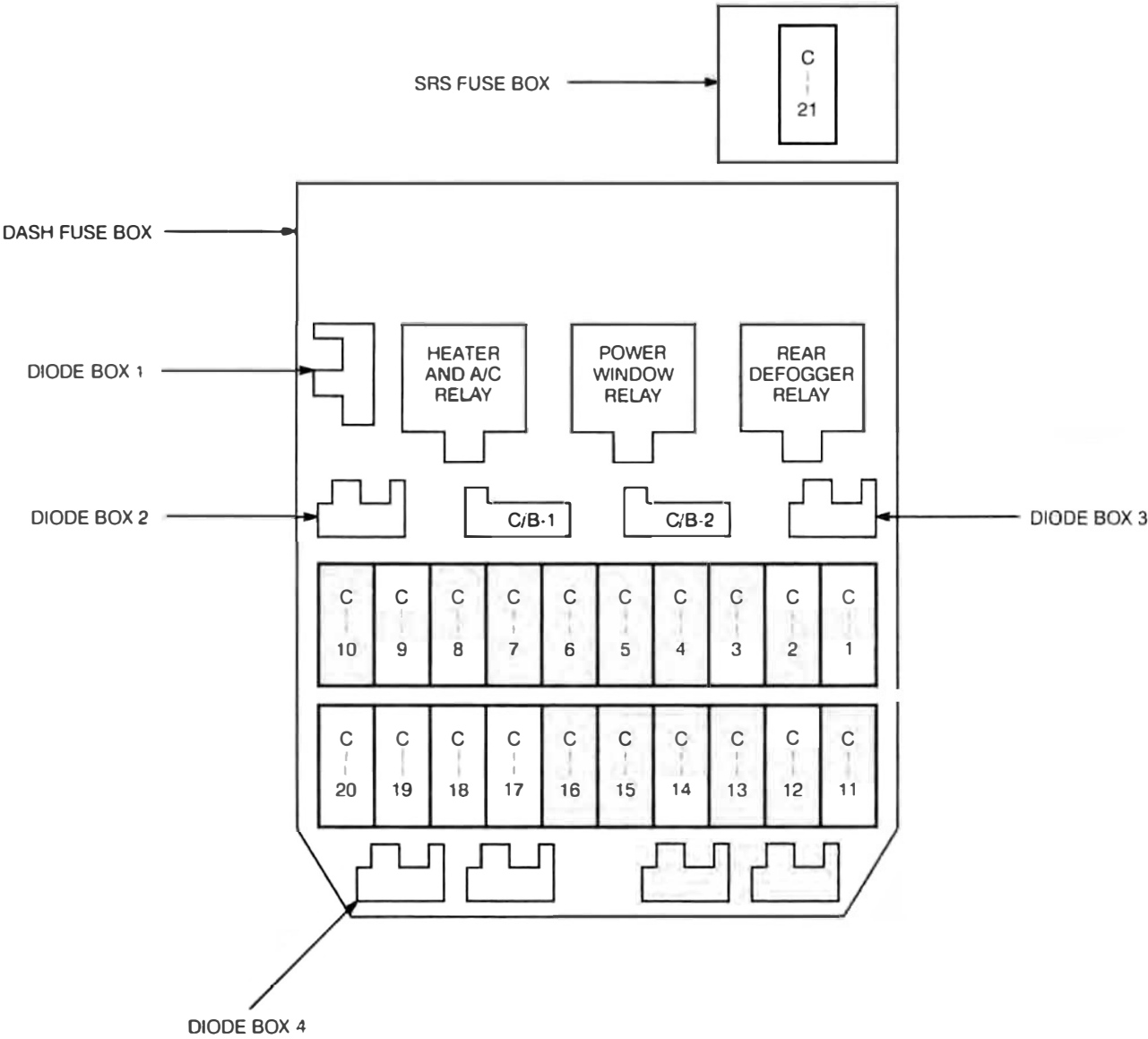
1. With the battery connected, remove the blown fuse.
2. Connect the short finder between the positive battery terminal and the load side fuse terminal.
3. Close all switches in series with the wire that you are troubleshooting.
4. Turn on the short finder. This will send pulses of current to the short and create a pulsing magnetic field around the wiring between the fuse box and the short.
5. Beginning at the fuse box, slowly move the short finder meter along the circuit wiring. The meter will show current pulses through sheet metal and body trim. As long as the meter is between the fuse and the short, the needle will move with each current pulse. Once you move the meter past the point of the short, the needle will stop moving. Check around this area to locate the cause of the short circuit.



THIS PAGE INTENTIONALLY LEFT BLANK

FUSE/RELAY INFORMATION

Dash and SRS Fuse Boxes

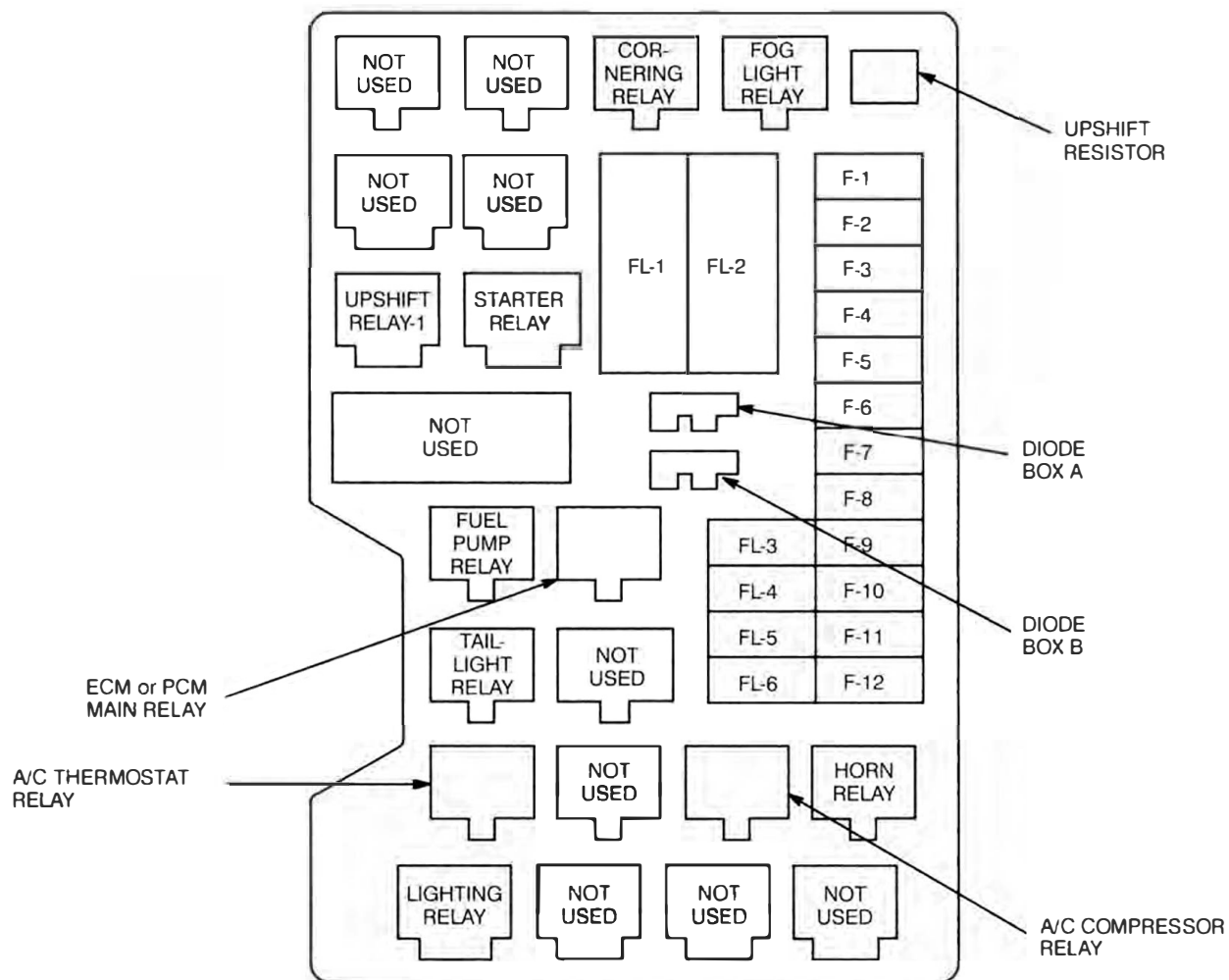


Fuse Number	Fuse Name	Amps	Circuit Protected
C-1	STARTER RELAY	10	Starting system; blower controls
C-2	(SEAT HEATER)	15	Seat heater
C-3	BACK TURN	15	Back-up lights; turn lights; hazard lights; cornering lights; A/T shift indicator; cruise control; automatic transmission controls
C-4	ELEC. IGN.	15	Rear defogger; cruise control; power windows; engine controls; door mirror defoggers; shift interlock system; power sunroof; anti-lock brake system (ABS); alarm and relay controls; torque-on-demand system; shift-on-the-fly system
C-5	FRT WIPER & WASHER	15	Windshield wiper/washer
C-6	RR WIPER & WASHER	10	Rear wiper/washer
C-7	—	—	Not used
C-8	ENGINE	15	Engine controls; charging system
C-9	IG COIL	15	Ignition system
C-10	METER GAUGE	10	Meter assembly; vehicle speed sensor
C-11	(AUDIO [ACC]) MIRROR	10	Sound system; power mirrors; clock; accessory meter
C-12	CIGAR	20	Cigarette lighter
C-13	(ANTI THEFT)	10	Anti-theft system
C-14	STOPLIGHT A/T CONT	15	Brake lights; automatic transmission controls; shift interlock system
C-15	(AUDIO [B])	20	Sound system; meter assembly
C-16	CLOCK [B] DOME LIGHT	10	Interior lights; key-in ignition warning system; anti-theft system; clock; alarm and relay controls
C-17	RR DEFOG	25	Rear defogger
C-18	(DOOR LOCK)	20	Power door locks; anti-theft system; power windows
C-19	BLOWER MTR	25	Blower controls
C-20	(AIR CON)	10	A/C: compressor controls
C-21	SRS-1	10	Supplemental restraint system (SRS)

Circuit Breaker Number	Circuit Breaker Name	Amps	Circuit Protected
C/B-1	—	—	Not used
C/B-2	(P/W, P/S, S/R)	30	Power windows; power sunroof; power seats; power door locks

FUSE/RELAY INFORMATION

Fuse/Relay Box

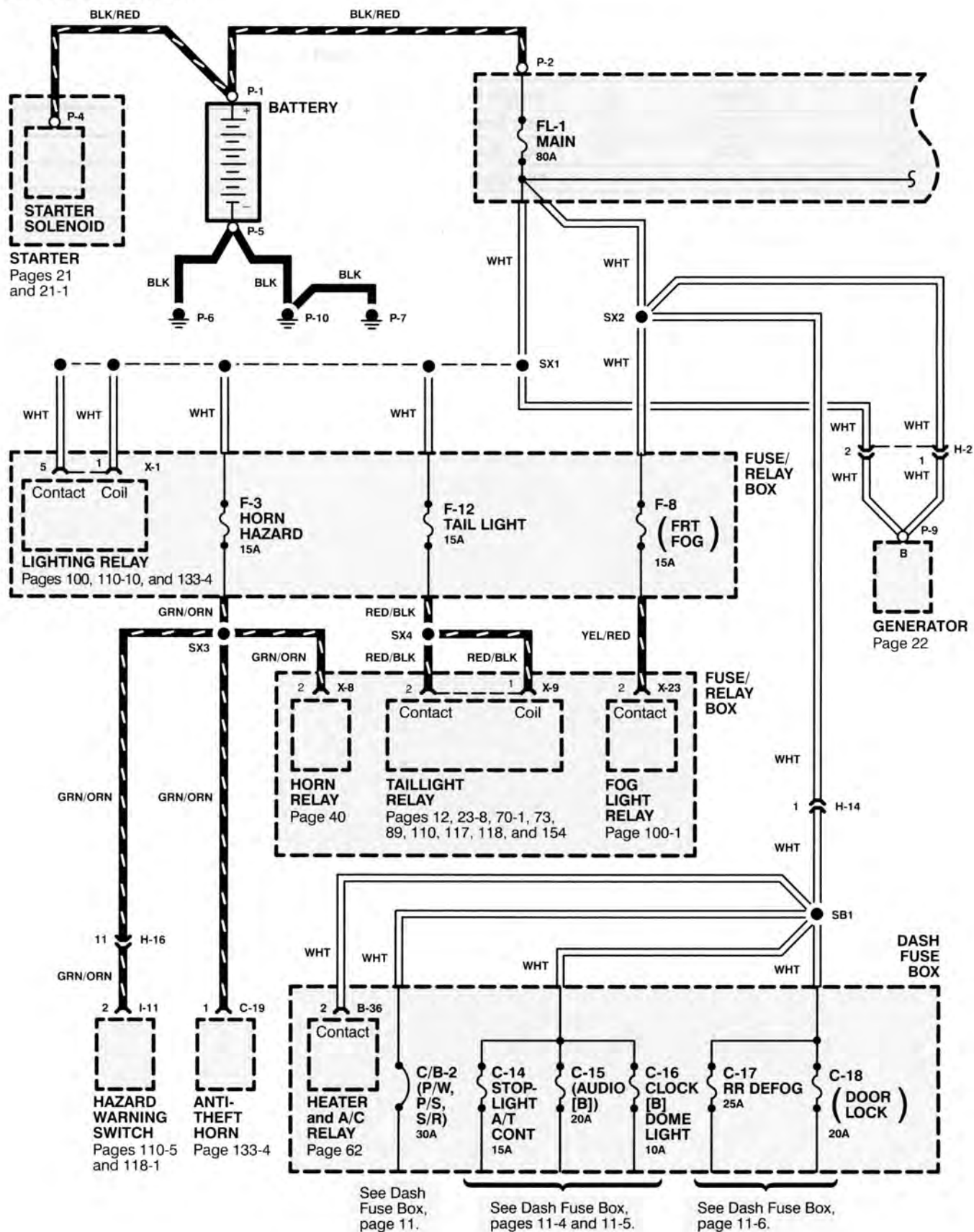


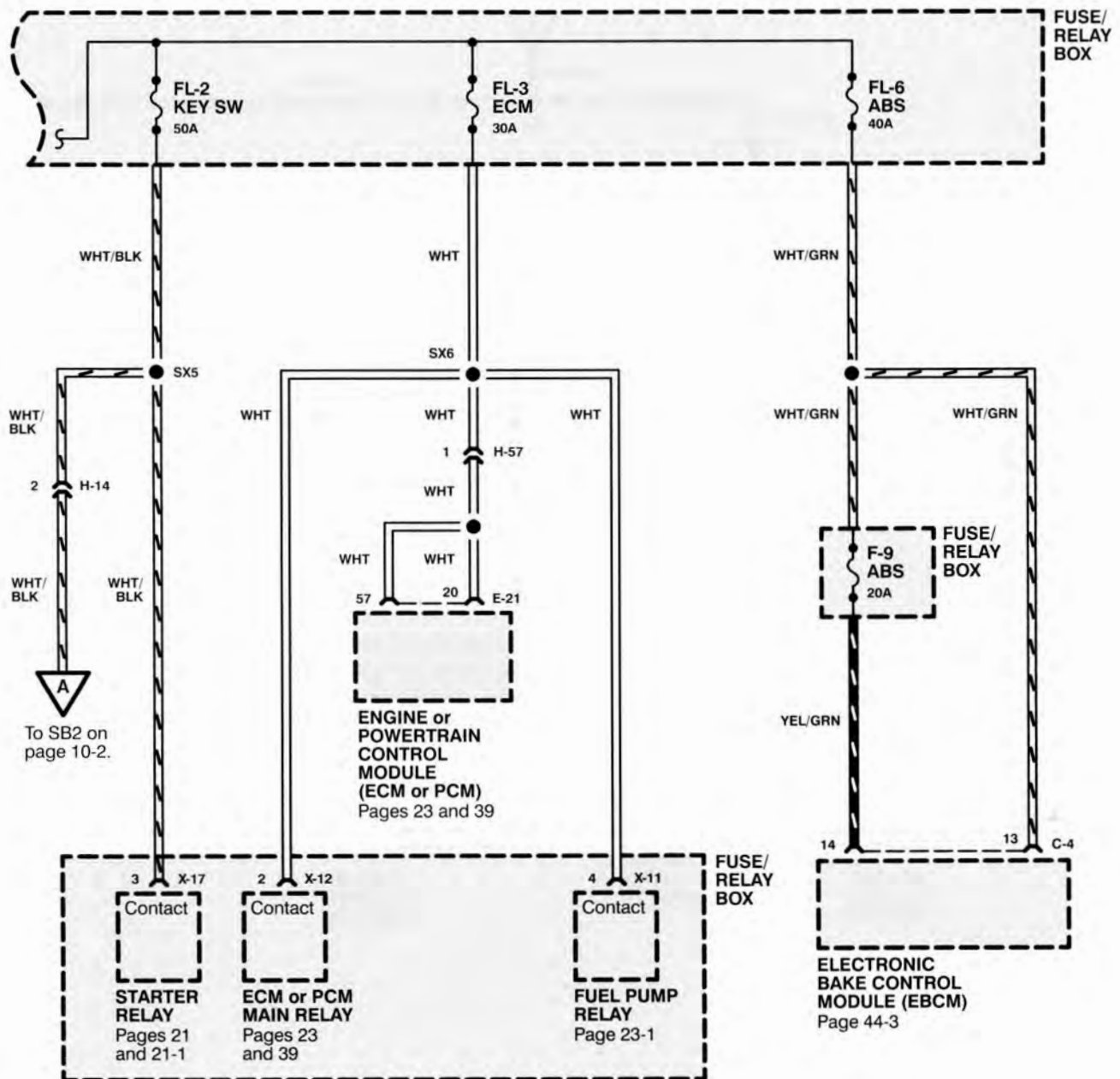
Fuse Number	Fuse Name	Amps	Circuit Protected
F-1	—	—	Not used
F-2	O2 SENSOR HEATER	20	Engine controls
F-3	HORN HAZARD	15	Anti-theft system; horns; hazard light
F-4	H/LAMP – LH	15	Headlights and fog lights
F-5	H/LAMP – RH	15	Headlights
F-6	—	—	Not used
F-7	—	—	Not used
F-8	(FRT FOG)	15	Fog lights
F-9	ABS	20	Anti-lock brake system (ABS)
F-10	FUEL PUMP	15	Engine controls
F-11	—	—	Not used
F-12	TAIL LIGHT	15	Taillights

Fusible Link Number	Fusible Link Name	Amps	Circuit Protected
FL-1	MAIN	80	See Power Distribution
FL-2	KEY SW.	50	See Power Distribution
FL-3	ECM	30	See Power Distribution
FL-4	—	—	Not used
FL-5	—	—	Not used
FL-6	ABS	44	Anti-lock brake system (ABS)

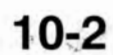
POWER DISTRIBUTION

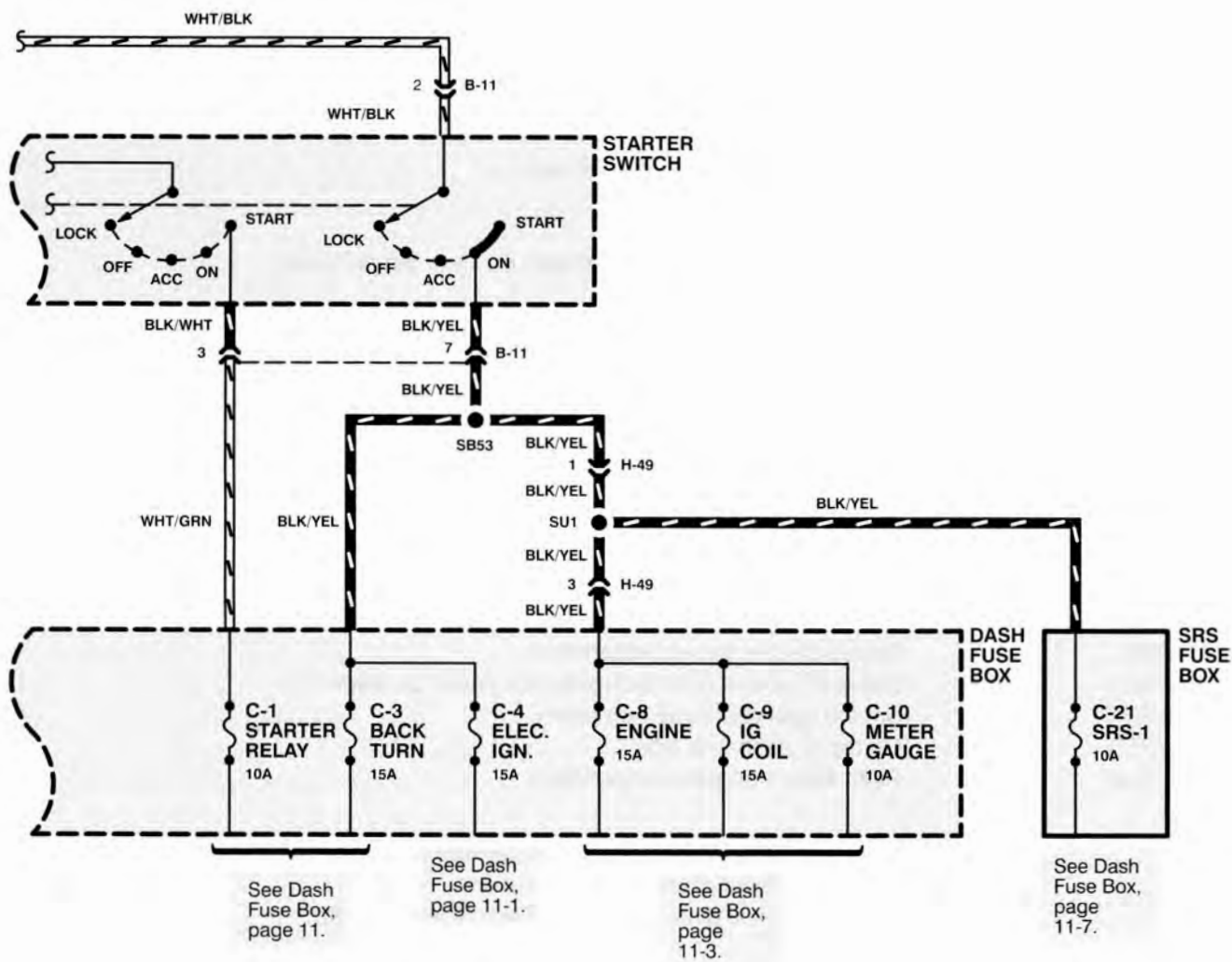
Circuit Schematic





Circuit Schematic





POWER DISTRIBUTION

Component Location Index

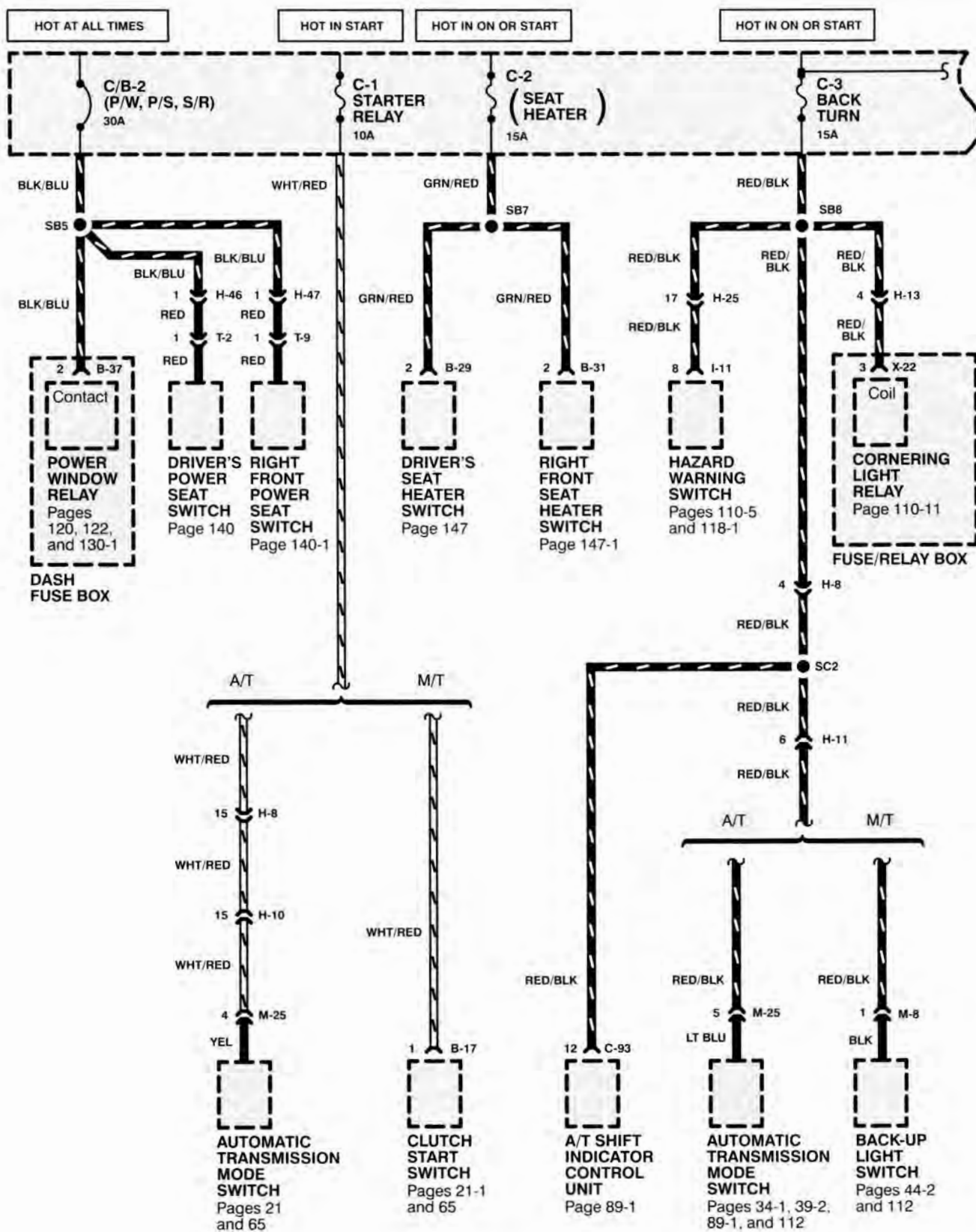
(Refer to Section 201 for photographs.)

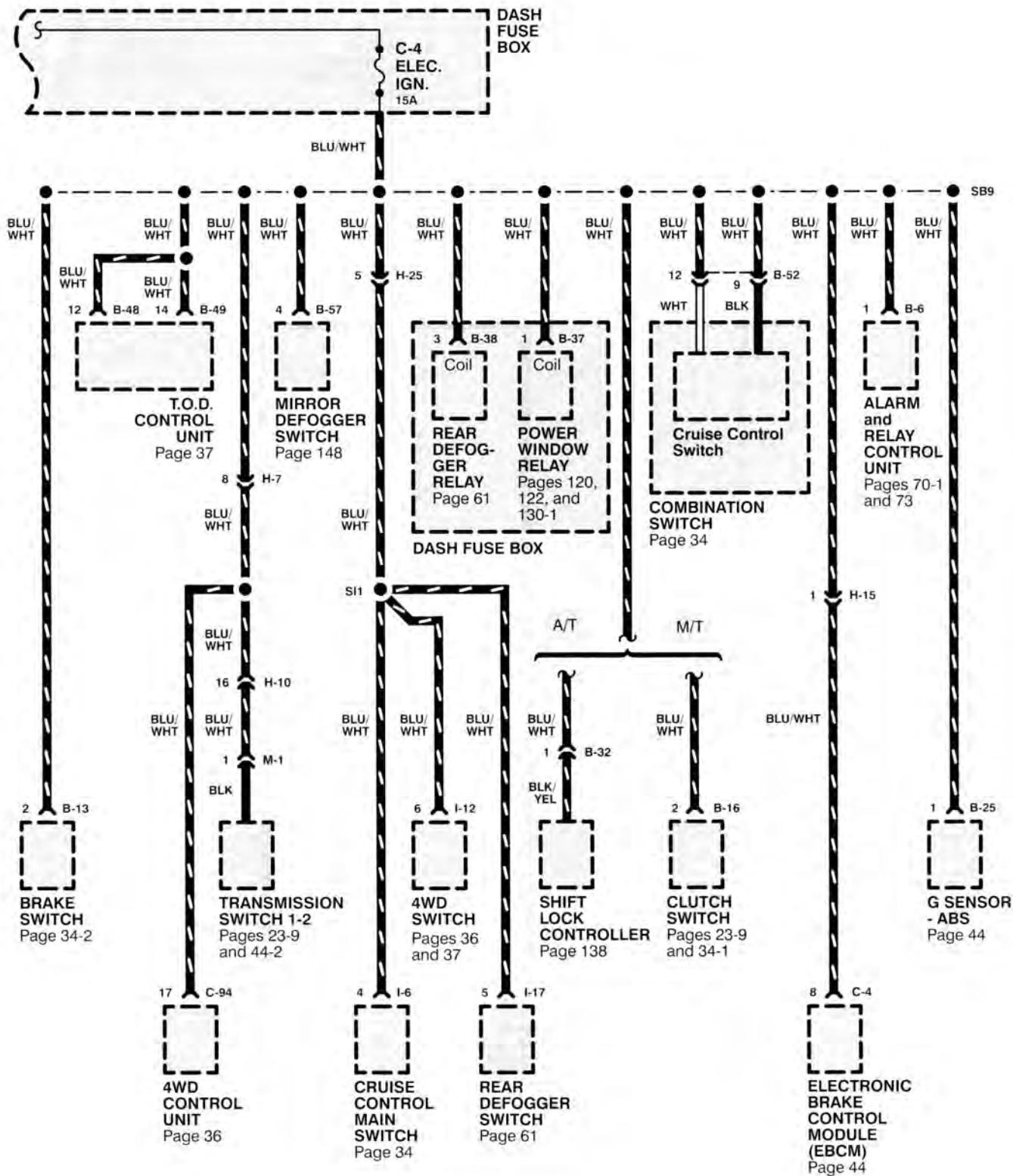
Component	Photo No.
Anti-theft Horn	Right rear corner of engine compartment 48
Dash Fuse Box	Behind left dash side trim panel 55
ECM or PCM Main Relay	In fuse/relay box 38
Electronic Brake Control	
Module (EBCM)	Right front of engine compartment 41
Engine or Powertrain Control	
Module (ECM or PCM)	Right side of engine compartment 60
Fog Light Relay	In fuse/relay box 35
Fuel Pump Relay	In fuse/relay box 38
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Generator	Lower right front of engine 5
Heater and A/C Relay	In dash fuse box 56
Horn Relay	In fuse/relay box 37
Lighting Relay	In fuse/relay box 35
SRS Fuse Box	On top of dash fuse box 68
Starter	Lower left rear of engine 24
Starter Relay	In fuse/relay box 38
Starter Switch	Underside of steering column 46
Taillight Relay	In fuse/relay box 35
Connector	
B-11 (8-WHT)	Below I/P, right of steering column 58
H-2 (2-GRY)	Right side of engine compartment 40
H-14 (2-RED)	Below I/P, above right dash side trim panel, on bracket 115
H-16 (22-WHT)	Behind right dash side trim panel 120
H-49 (4-WHT)	On top of dash fuse box 68
H-57 (16-BLK)	Right side of engine compartment 59
Ground	
P-6	Right side of engine compartment, on rear of battery tray 40
P-7	Lower right front of engine compartment 5
P-10	Lower right side of engine, near power steering pump
Terminal	
P-2	In fuse/relay box 36
P-4	On starter solenoid 24

THIS PAGE INTENTIONALLY LEFT BLANK

DASH FUSE BOX

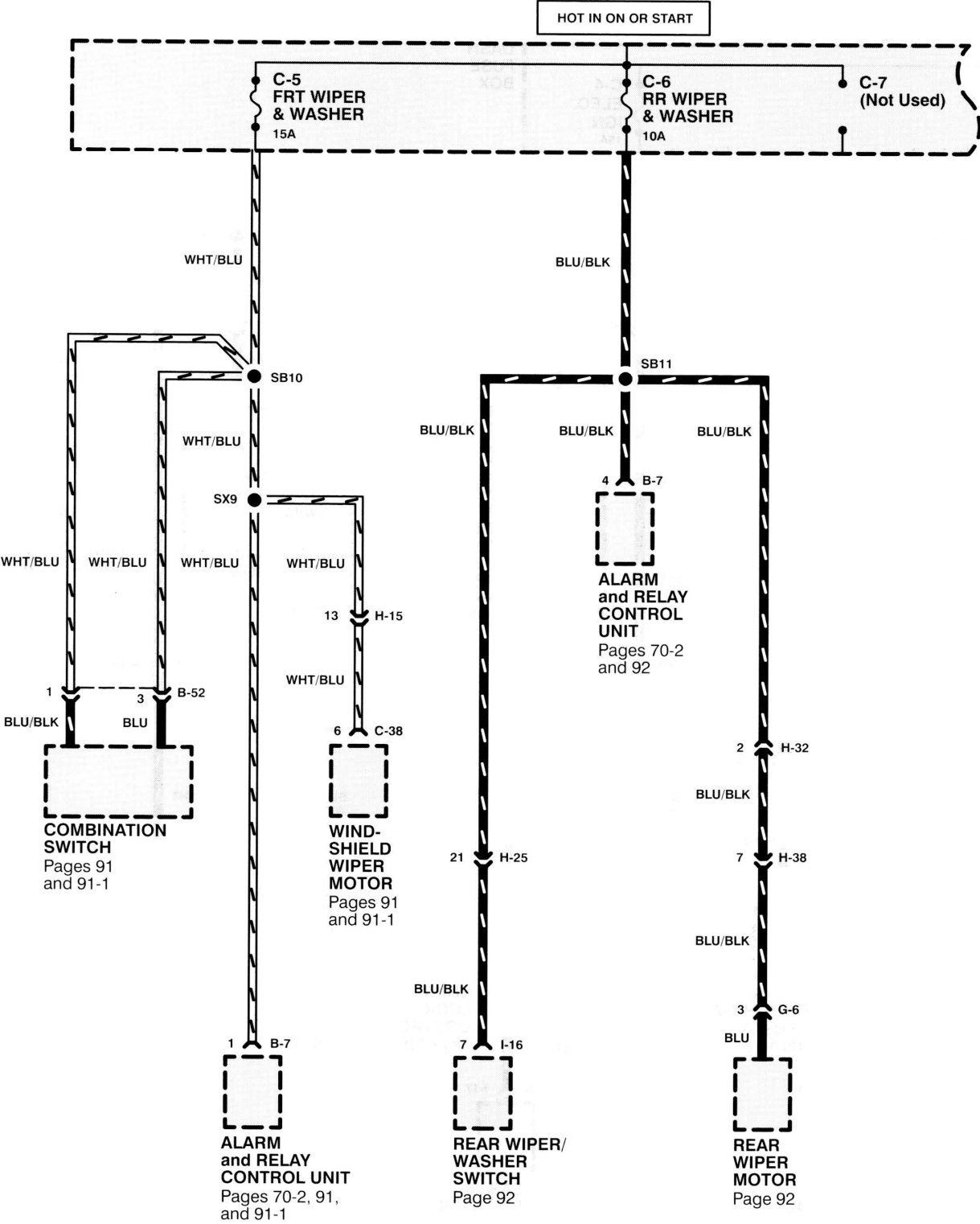
Circuit Schematic

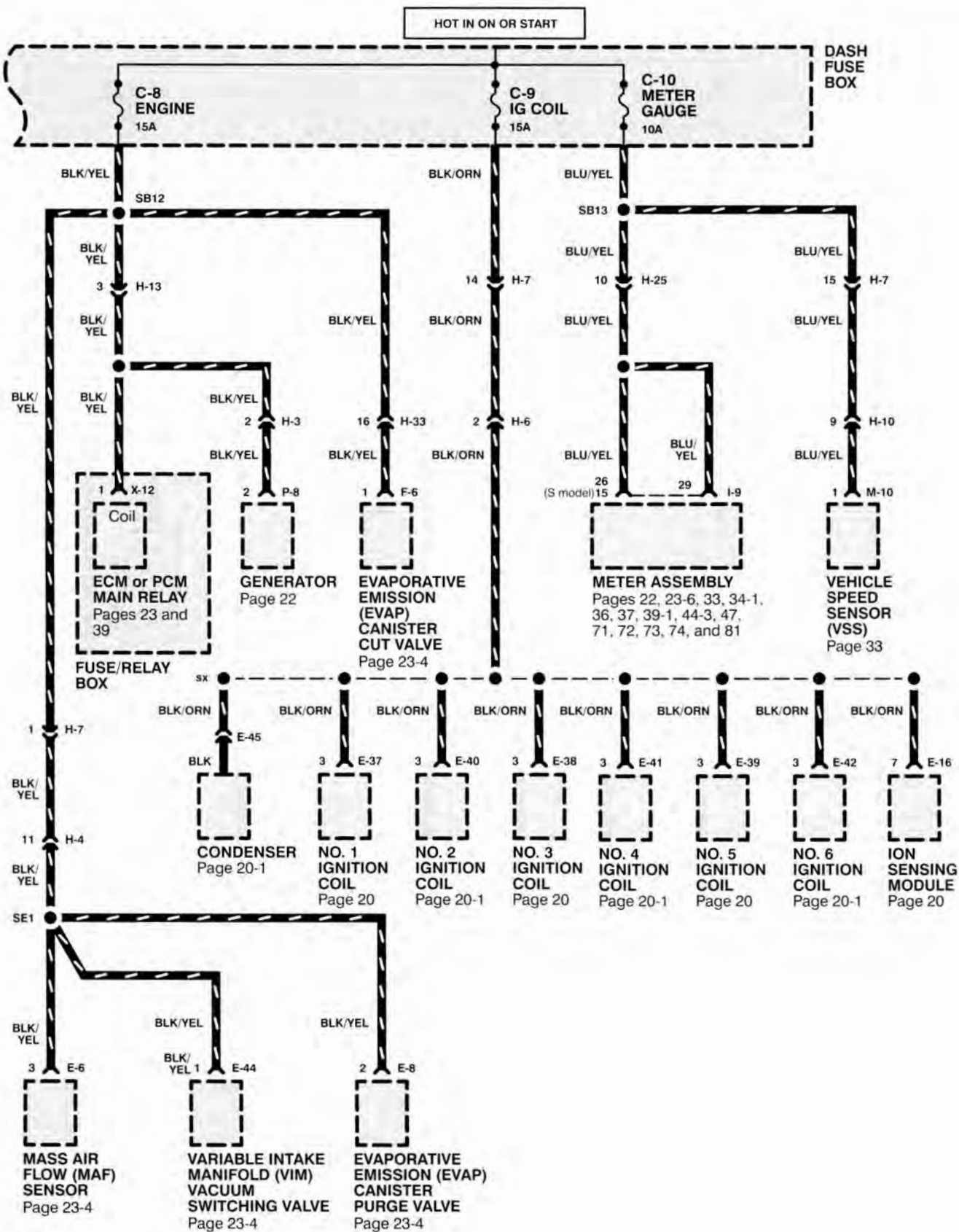




DASH FUSE BOX

Circuit Schematic



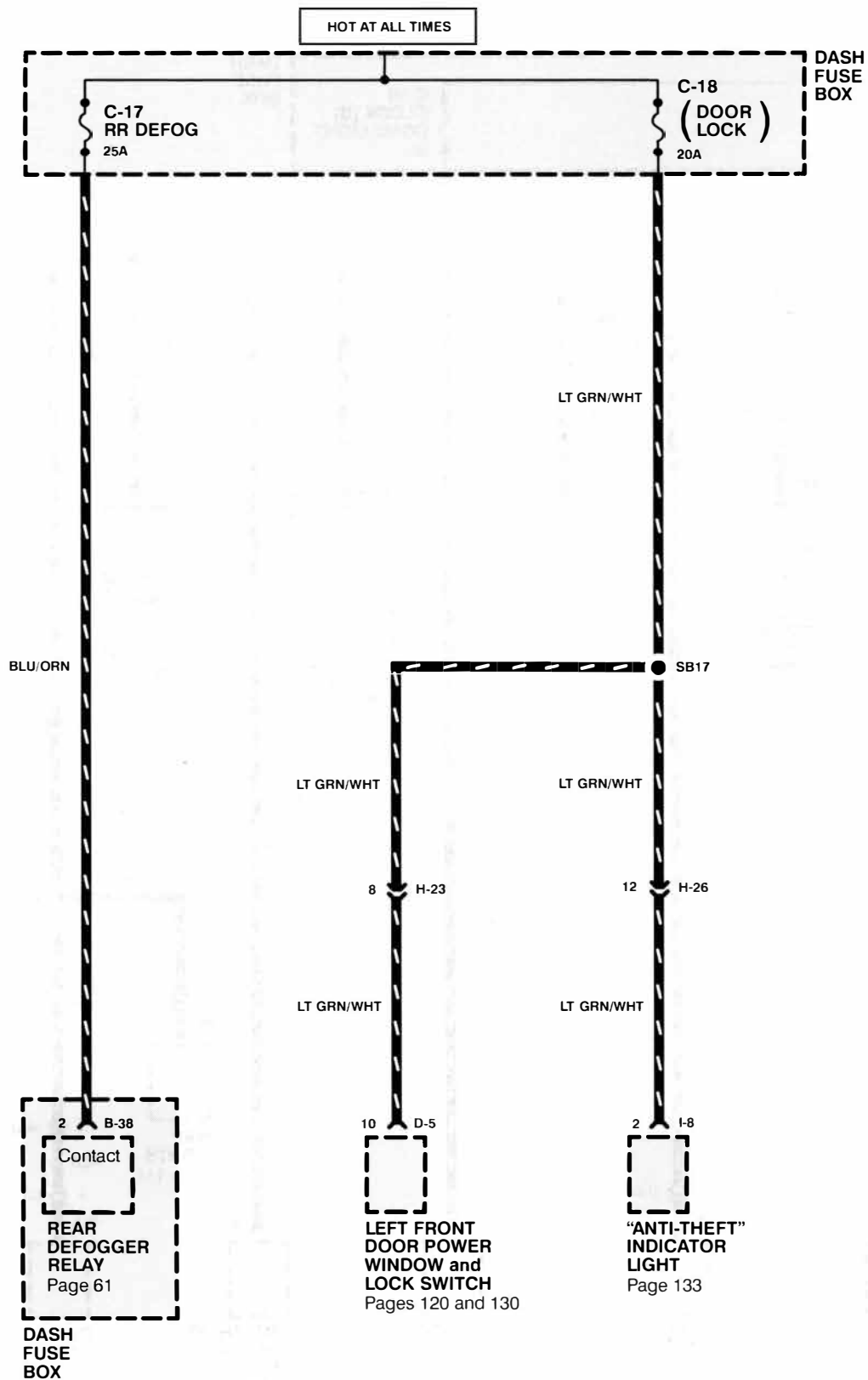


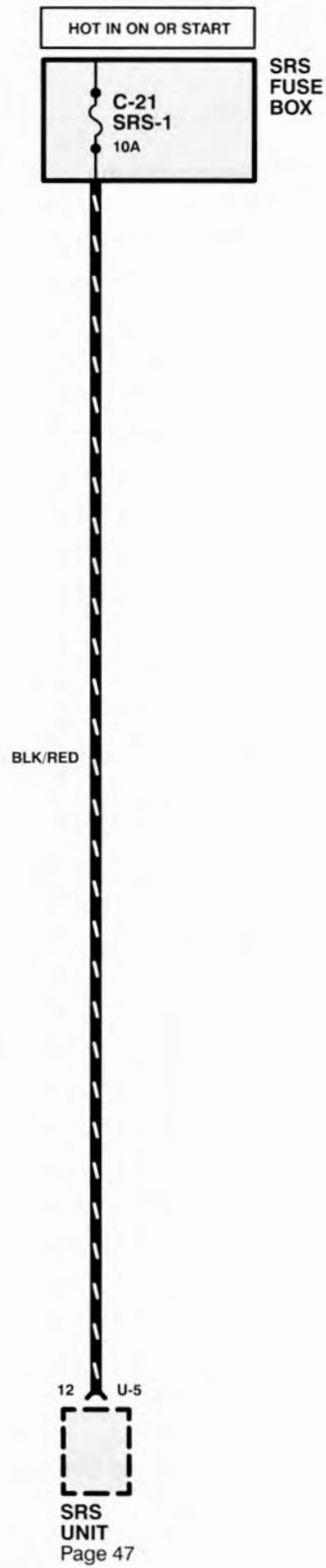
Circuit Schematic



DASH FUSE BOX

Circuit Schematic





DASH FUSE BOX

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
4WD Control Unit	Behind front console 62
A/T Shift Indicator Control Unit	Below I/P, left of steering column 74
Alarm and Relay Control Unit	Behind right kick panel 116
Anti-theft and Keyless Entry Control Unit	Behind front console 62
Automatic Transmission Mode Switch	Beneath vehicle, on left side of transmission 43
Back-up Light Switch	Beneath vehicle, on right side of transmission 118
Brake Switch	Below I/P, on brake pedal support 74
Clutch Start Switch	Below I/P, top of clutch pedal support 57
Clutch Switch	Below I/P, top of clutch pedal support 57
Condenser	Top right front of engine 10
Cornering Light Relay	In fuse/relay box 35
Dash Fuse Box	Behind left dash side trim panel 55
Data Link Connector (DLC) C63 (16-BLK)	Left I/P lower cover, behind access cover 47
ECM or PCM Main Relay	In fuse/relay box 38
Electronic Brake Control Module (EBCM)	Right front of engine compartment 41
Engine or Powertrain Control Module (ECM or PCM)	Right side of engine compartment 60
Evaporative Emission (EVAP) Vacuum Switching Valve	On left rear of engine 32
Evaporative Emission (EVAP) Canister Cut Valve	Underneath vehicle, above right side of rear axle 130
Evaporative Emission (EVAP) Canister Purge Valve	Top left front of engine 22
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
G Sensor - ABS	Beneath rear of center console 126
Generator	Lower right front of engine 5
ION Sensing Module	Top rear of engine 28
Mass Air Flow (MAF) Sensor	Left front corner of engine compartment 13
No. 1 Ignition Coil	Right side of engine 11
No. 2 Ignition Coil	Left side of engine 12
No. 3 Ignition Coil	Right side of engine 11
No. 4 Ignition Coil	Left side of engine 12
No. 5 Ignition Coil	Right side of engine 11
No. 6 Ignition Coil	Left side of engine 12
Power Window Relay	In dash fuse box 56
Rear Defogger Relay	In dash fuse box 56
Rear Wiper Motor	Inside left tailgate door, behind trim pad 91
Shift Lock Controller	Below front console 65
SRS Fuse Box	On top of dash fuse box 68
SRS Unit	Behind front console 61
Starter Switch	Underside of steering column 46
T.O.D. Control Unit	Below right front seat 125

Component Location Index

(Refer to Section 201 for photographs.)

Component (cont'd)	Photo No.
Transmission Switch 1-2	Beneath vehicle, on right side of transmission 15
Vehicle Speed Sensor (VSS)	
(A/T)	Beneath center of vehicle, on rear of transmission 129
Vehicle Speed Sensor (VSS)	
(M/T)	Beneath center of vehicle, on rear of transmission 119
Windshield Wiper Motor	Right rear corner of engine compartment 45
Connector	
B-11 (8-WHT)	Below I/P, right of steering column 58
B-32 (6-WHT)	Below rear of front console 66
B-52 (14-BLK)	Below I/P, right of steering column 58
D-7 (2-BLK)	Inside left front door, behind trim pad 77
D-18 (2-BLK)	Inside right front door, behind trim pad 77
D-24 (2-BLK)	Inside rear of left rear door, behind door courtesy light 83
D-29 (2-BLK)	Inside rear of right rear door, behind door courtesy light 83
E-45 (1-BLK)	Top right front of engine
G-6 (4-WHT)	Inside left tailgate door, behind trim pad 91
H-3 (3-BLK)	Right side of engine compartment 40
H-4 (16-BLK)	Left side of engine compartment 33
H-6 (16-BLU)	Left side of engine compartment 33
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket 69
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-10 (16-BLU)	Left front of engine compartment 27
H-11 (16-BLK)	Left front of engine compartment 27
H-13 (6-BLK)	Below I/P, above right dash side trim panel, on bracket 100
H-15 (14-WHT)	Below I/P, above right dash side trim panel, on bracket 115
H-18 (18-WHT)	Behind right dash side trim panel, in access hole 54
H-21 (8-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-22 (18-WHT)	Behind left dash side trim panel, in access hole 54
H-23 (8-BLK)	Behind left dash side trim panel, in access hole 54
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-26 (20-WHT)	Below I/P, above left dash side trim panel, on bracket 71
H-28 (6-WHT)	In left center pillar 81
H-32 (22-WHT)	Below left front seat 105
H-33 (20-WHT)	In floor, below right front seat 110
H-34 (6-WHT)	In right center pillar 81
H-38 (10-WHT)	Left rear of luggage room 89
H-45 (6-BLK/WHT)	Center of roof, above map lights 85
H-46 (6-WHT)	Below left side of left front seat 105
H-47 (6-WHT)	Below right side of right front seat 110
H-48 (16-BLK)	Behind right dash side trim panel 120
I-9 (30-GRN)	On left top of meter assembly 53
I-10 (22-GRN)	On right top of meter assembly 53
L-2 (1-WHT)	Center front of roof, above map lights 85
L-3 (2-WHT)	Center of roof, above dome light 86
L-5 (6-WHT)	Above accessory meter 26

DASH FUSE BOX

Component Location Index

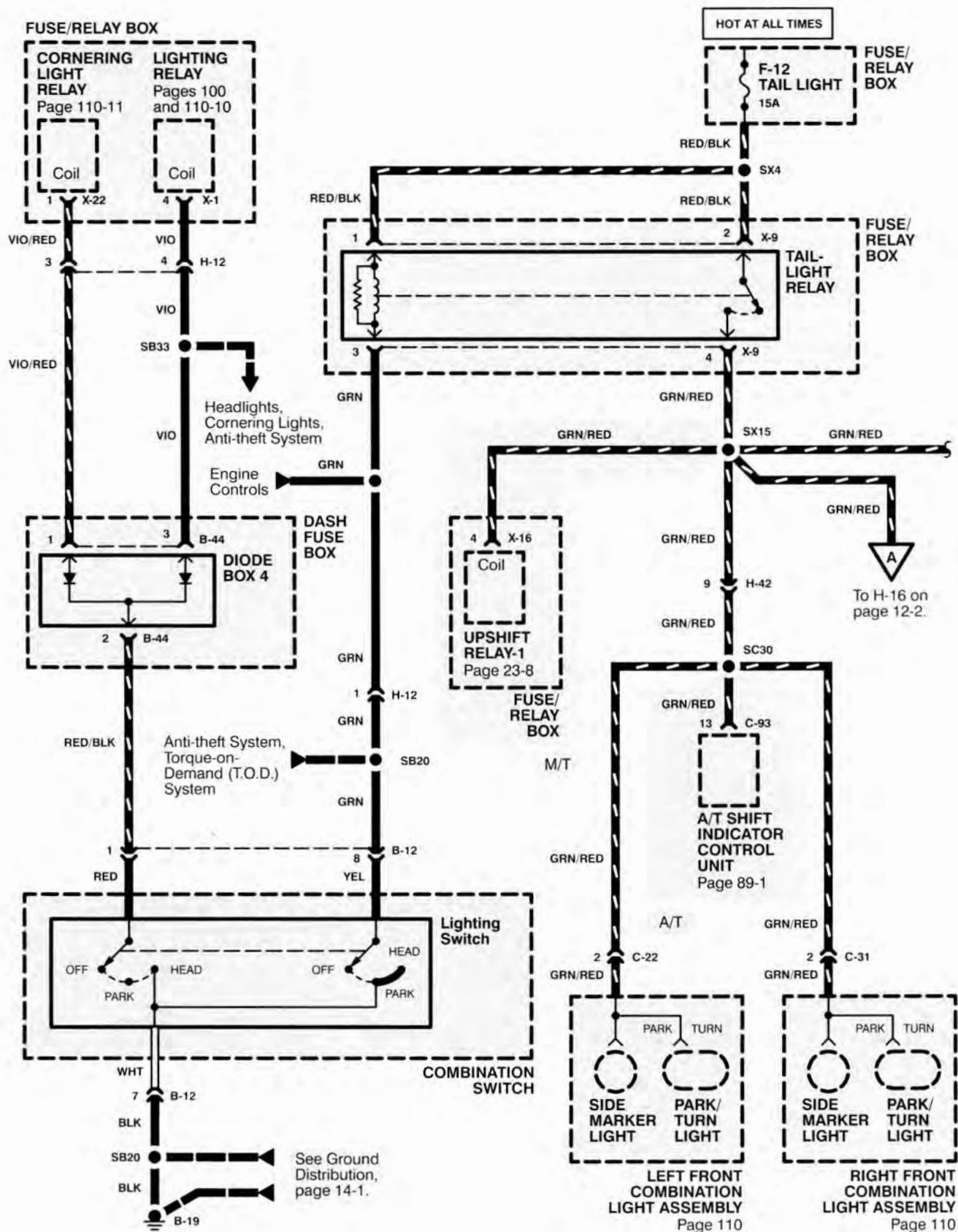
(Refer to Section 201 for photographs.)

Connector (cont'd)		Photo No.
M-1 (2-GRY)	Beneath center of vehicle, top right side of transmission	15
M-8 (2-BLU/GRY)	Beneath center of vehicle, top right side of transmission	118
M-25 (8-BLK)	On left side of transmission	52
R-6 (3-WHT)	Center rear of roof	87
T-2 (2-WHT)	Underside of driver's seat	108
T-9 (2-WHT)	Underside of right front seat	112

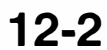
THIS PAGE INTENTIONALLY LEFT BLANK

LIGHTING SWITCH DETAILS

Circuit Schematic



Circuit Schematic



Component Location Index

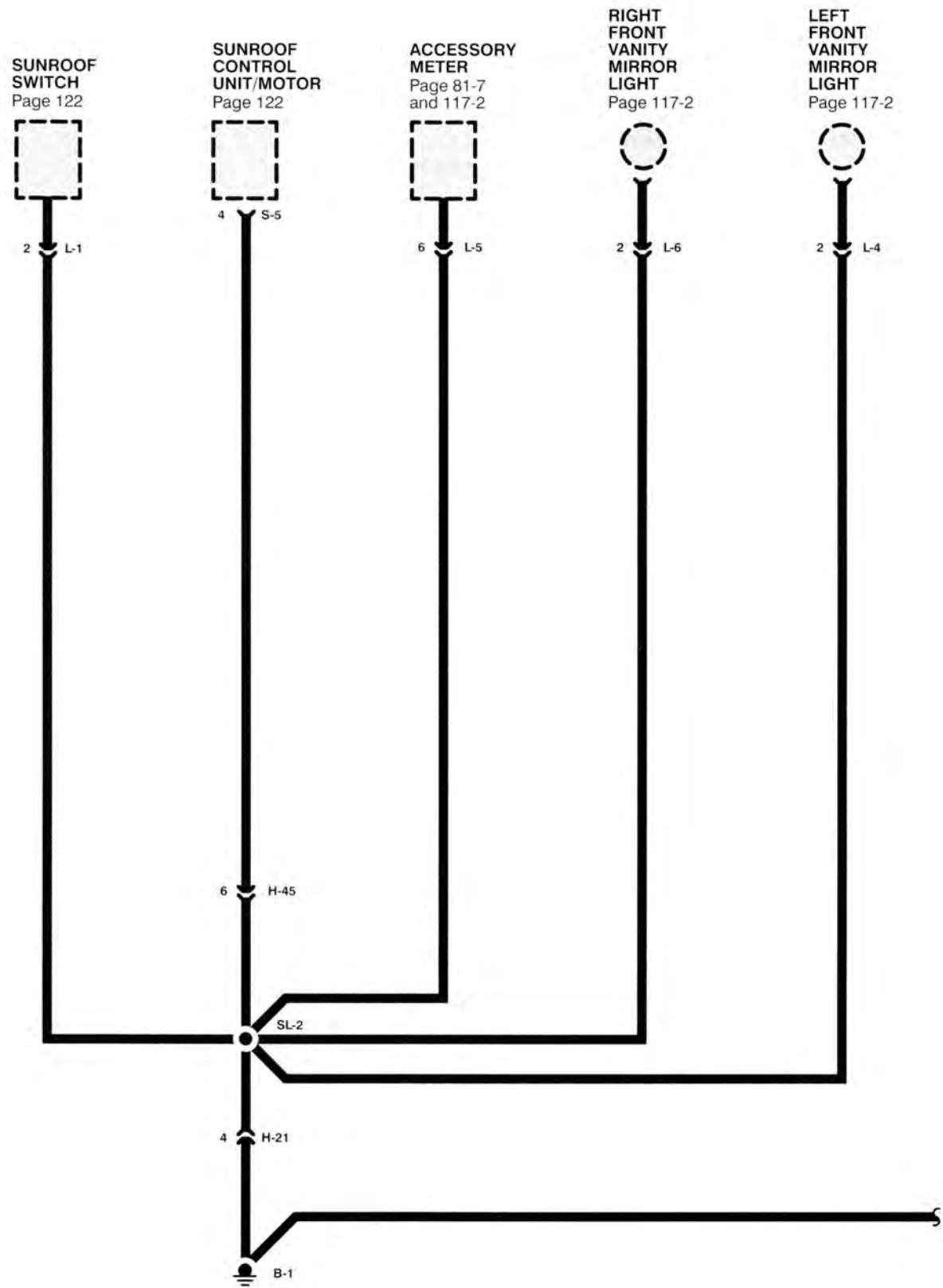
(Refer to Section 201 for photographs.)

Component	Photo No.
Alarm and Relay Control	
Unit	Behind right kick panel 116
A/T Shift Indicator Control	
Unit	Below I/P, left of steering column 74
Cornering Light Relay	In fuse/relay box 35
Dash Fuse Box	Behind left dash side trim panel 55
Diode Box 4	In dash fuse box 55
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Lighting Relay	In fuse/relay box 35
Taillight Relay	In fuse/relay box 35
Trailer Lighting Connector	
H-44 (6-WHT)	Below left rear corner of vehicle, behind grommet 102
Upshift Relay-1	In fuse/relay box 34
Connector	
B-12 (16-WHT)	Below I/P, right of steering column 58
B-33 (2-WHT/BLK)	Below rear of front console 66
C-22 (4-GRY)	Behind left front combination light assembly 3
C-31 (4-GRY)	Behind right front combination light assembly 3
G-8 (2-WHT)	Inside right tailgate door, behind trim pad 95
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-16 (22-WHT)	Behind right dash side trim panel 120
H-21 (8-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-32 (22-WHT)	Below left front seat 105
H-39 (2-WHT)	Right rear of luggage room 96
H-42 (16-BLU)	Right front of engine compartment 31
I-9 (30-GRN)	On left top of meter assembly 53
I-19 (2-WHT)	Behind cigarette lighter 135
I-20 (2-BLU/WHT)	Behind cigarette lighter 135
L-4 (2-BLK)	Left front of roof 49
L-5 (6 WHT)	Above multi-meter 26
L-6 (2-BLK)	Right front of roof 49
R-7 (6-WHT/BLK)	Behind left taillight assembly 103
R-9 (6-WHT/BLK)	Behind right taillight assembly 103
Ground	
B-19	Behind top of left dash side trim panel 71

GROUND DISTRIBUTION: B-1

Circuit Schematic

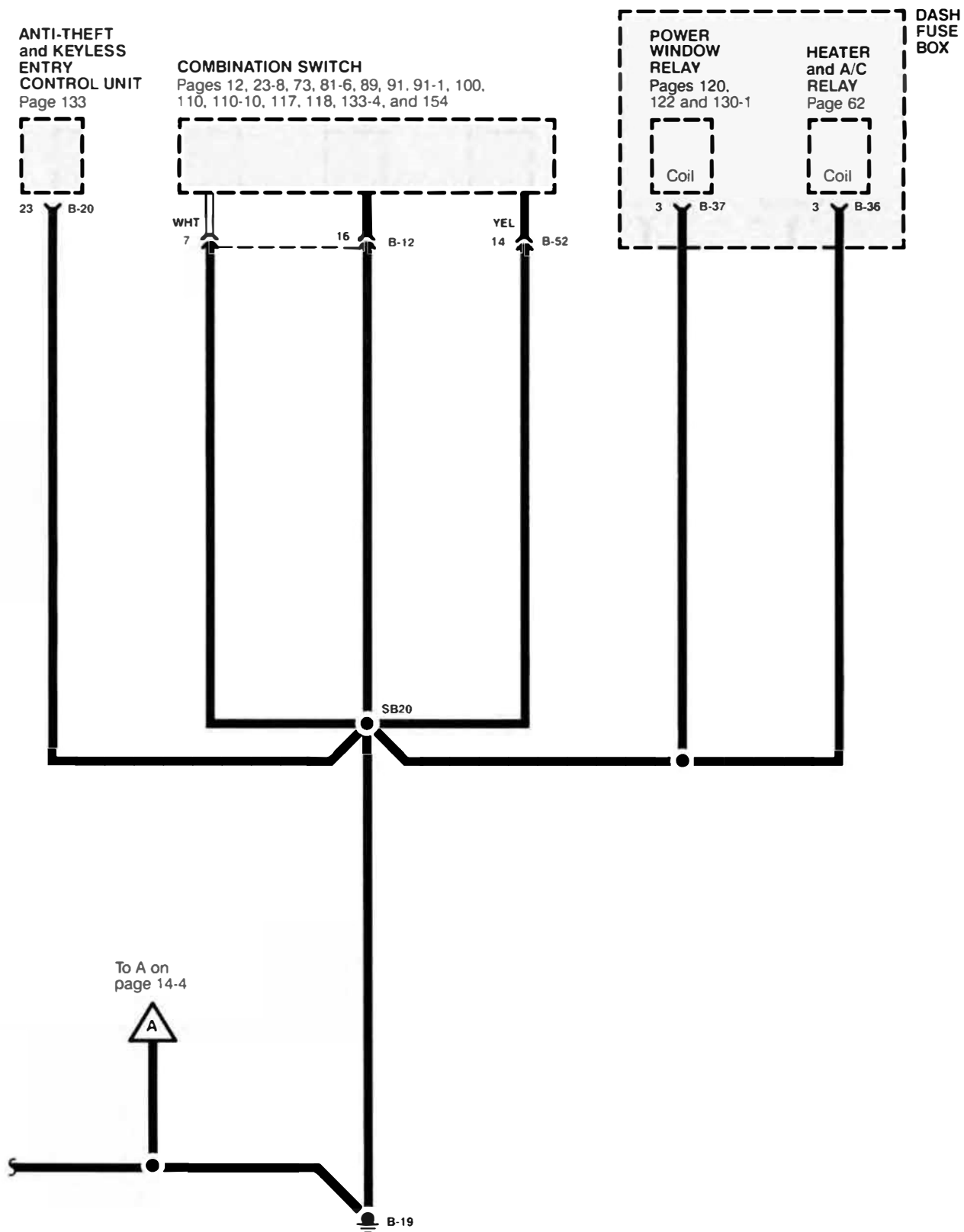
NOTE: Wires shown without color codes are black.



GROUND DISTRIBUTION: B-19

Circuit Schematic

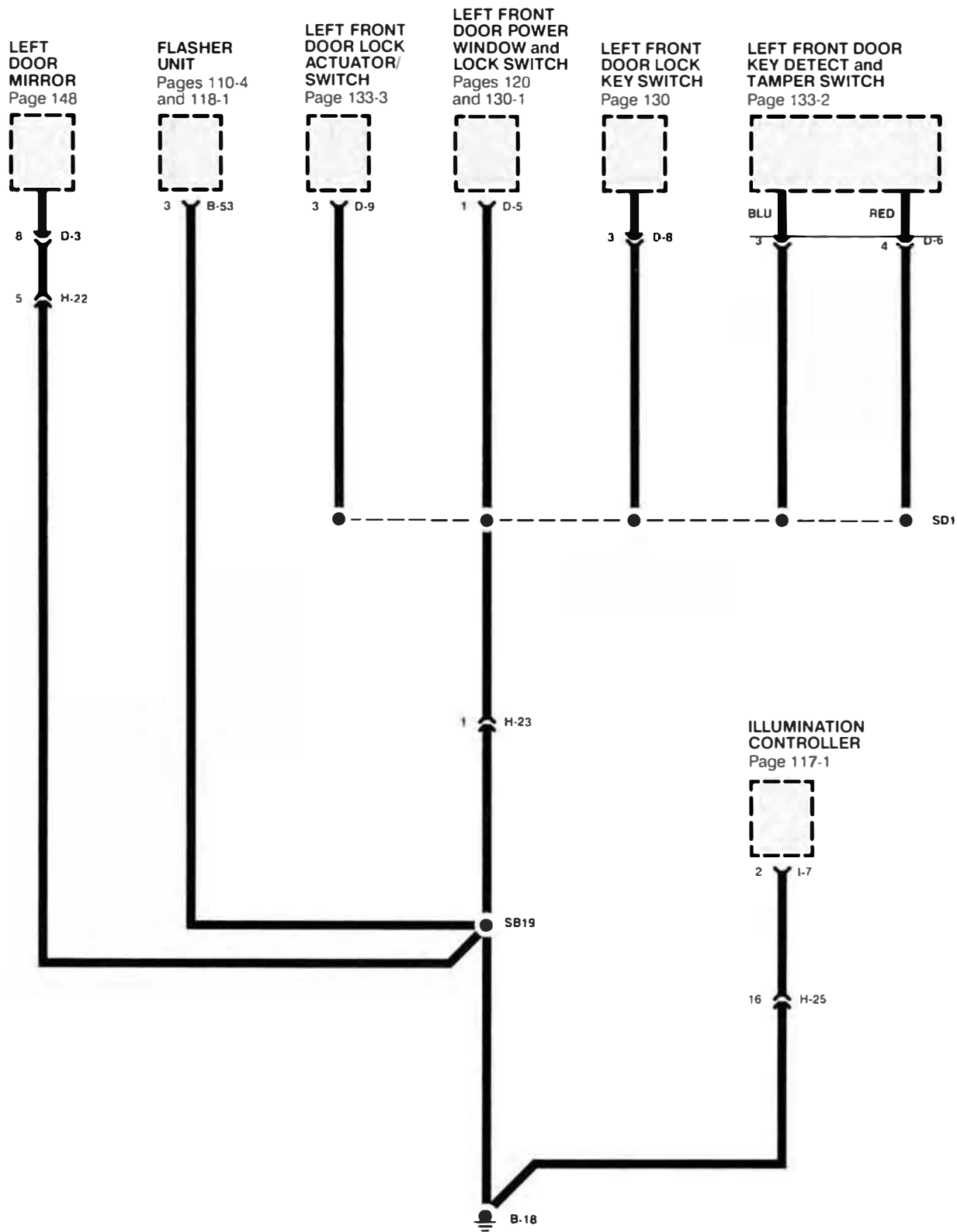
NOTE: Wires shown without color codes are black.



GROUND DISTRIBUTION: B-18

Circuit Schematic

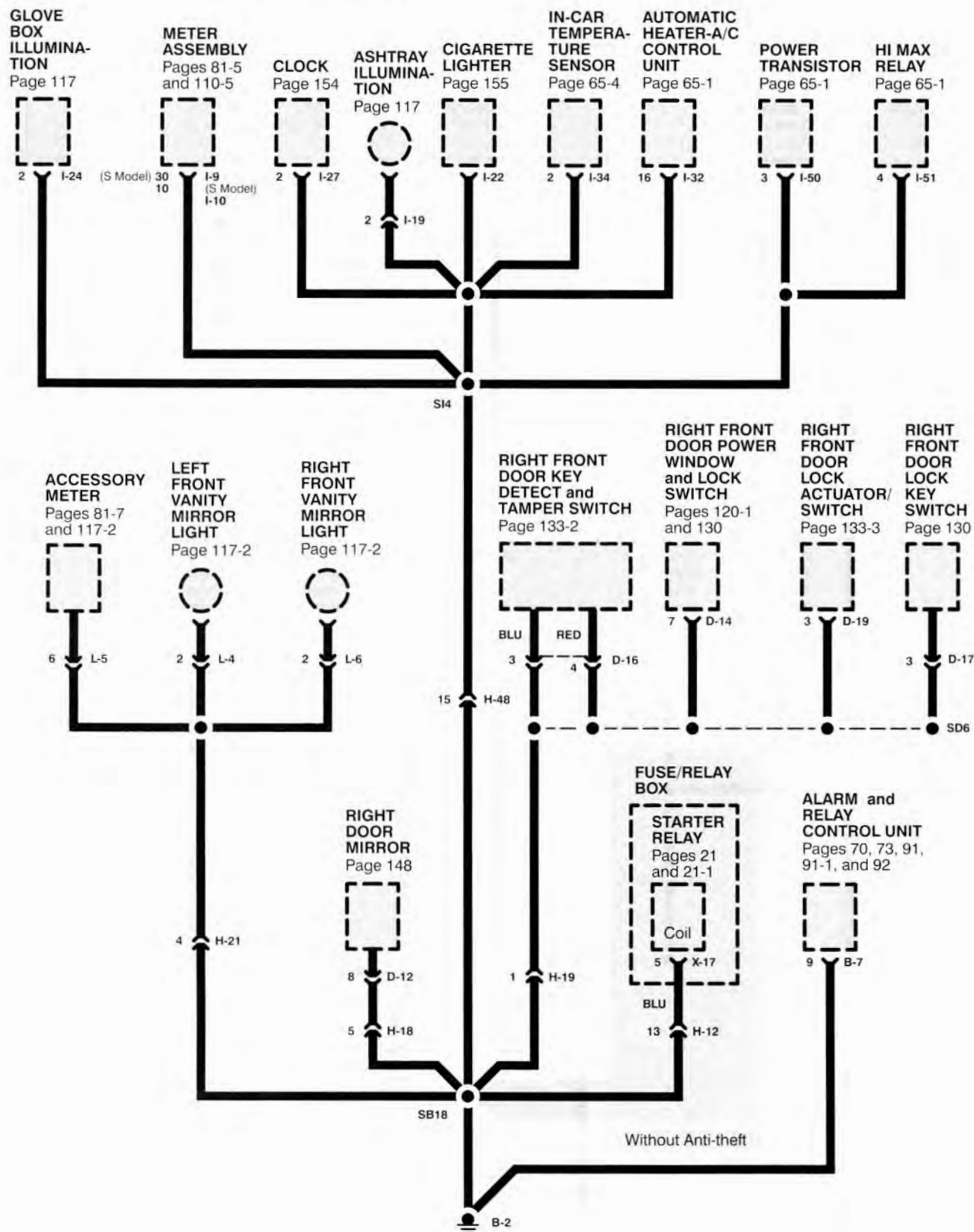
NOTE: Wires shown without color codes are black.



GROUND DISTRIBUTION: B-2

Circuit Schematic

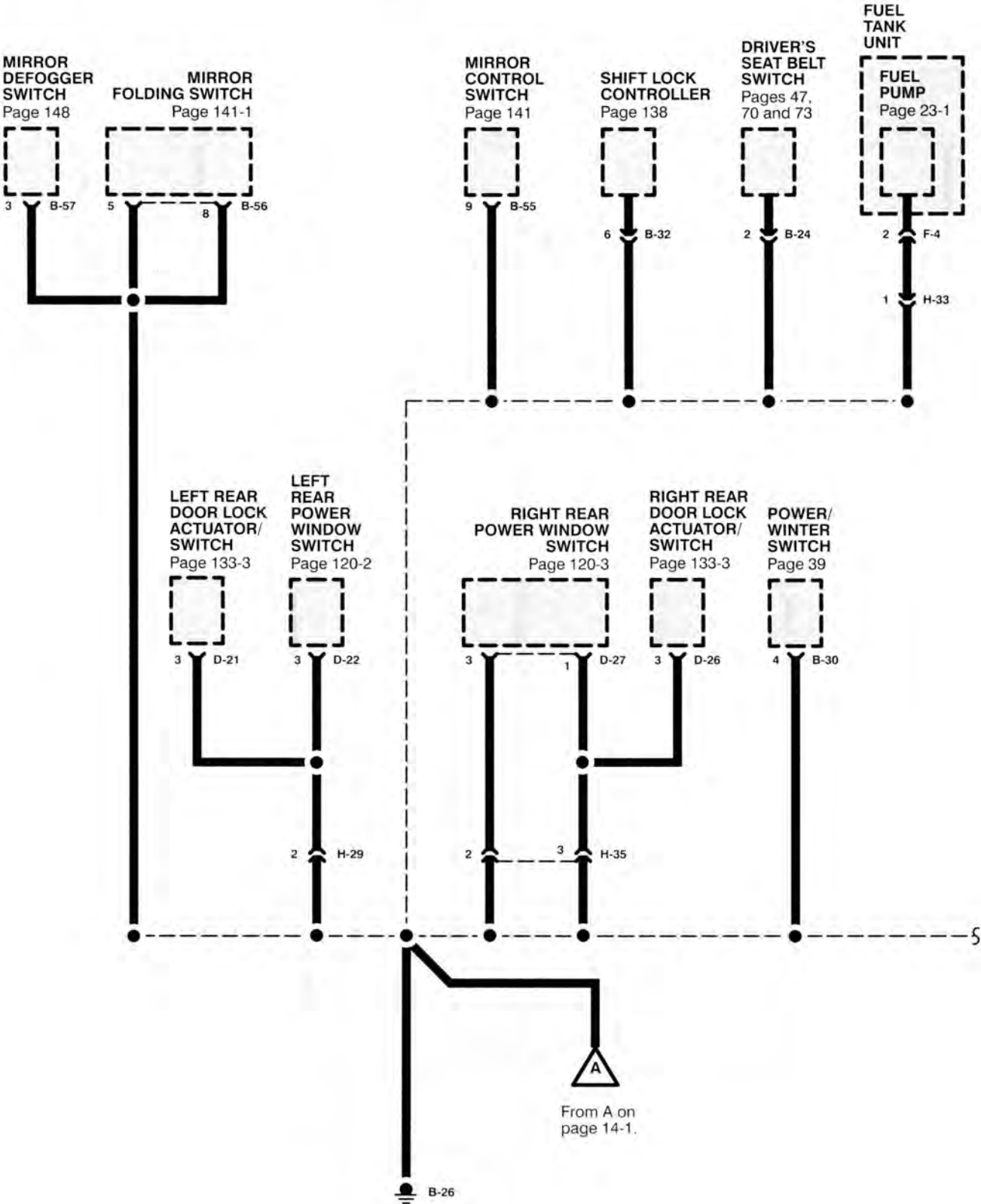
NOTE: Wires shown without color codes are black.



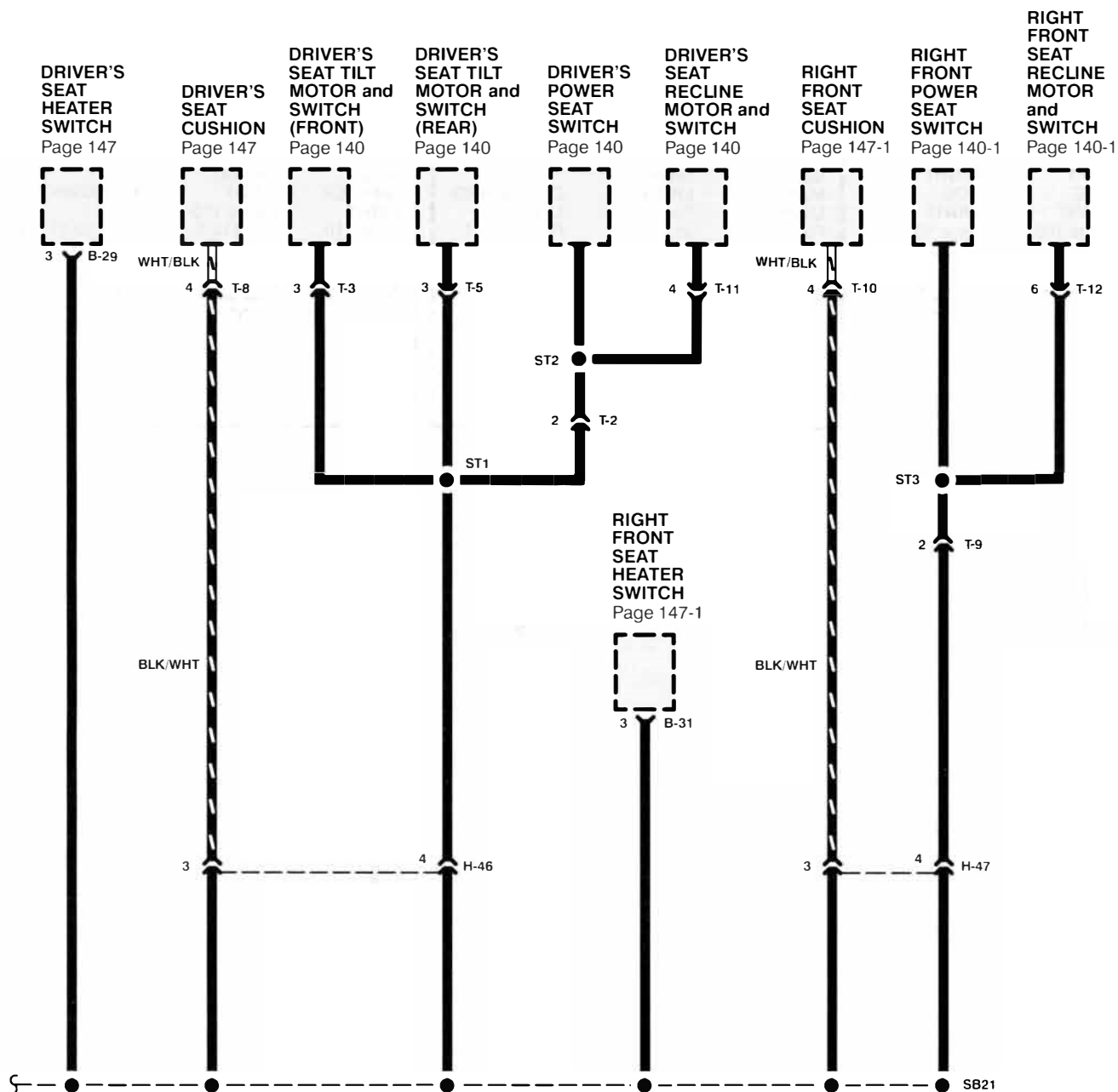
GROUND DISTRIBUTION: B-26

Circuit Schematic

NOTE: Wires shown without color codes are black.



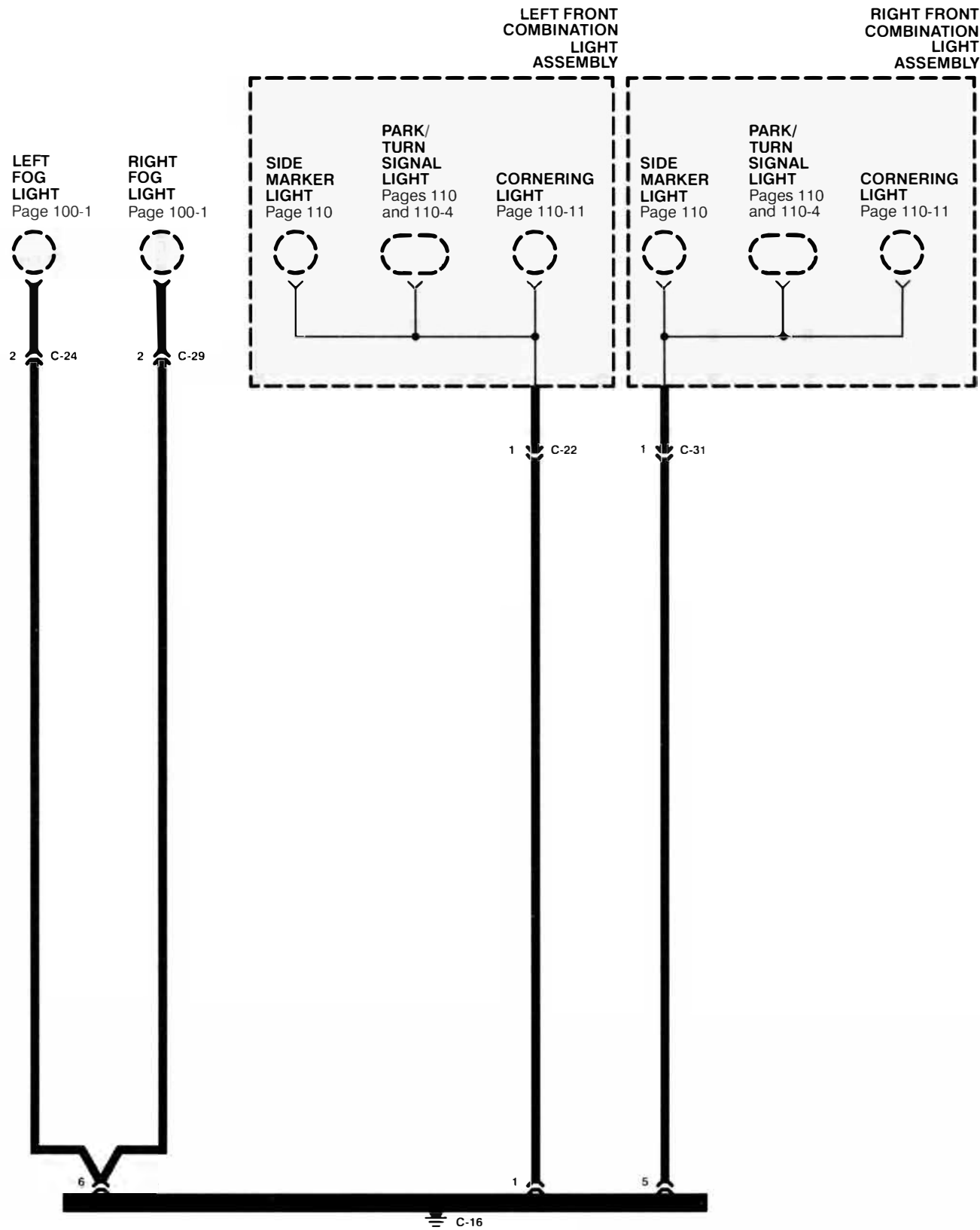
NOTE: Wires shown without color codes are black.



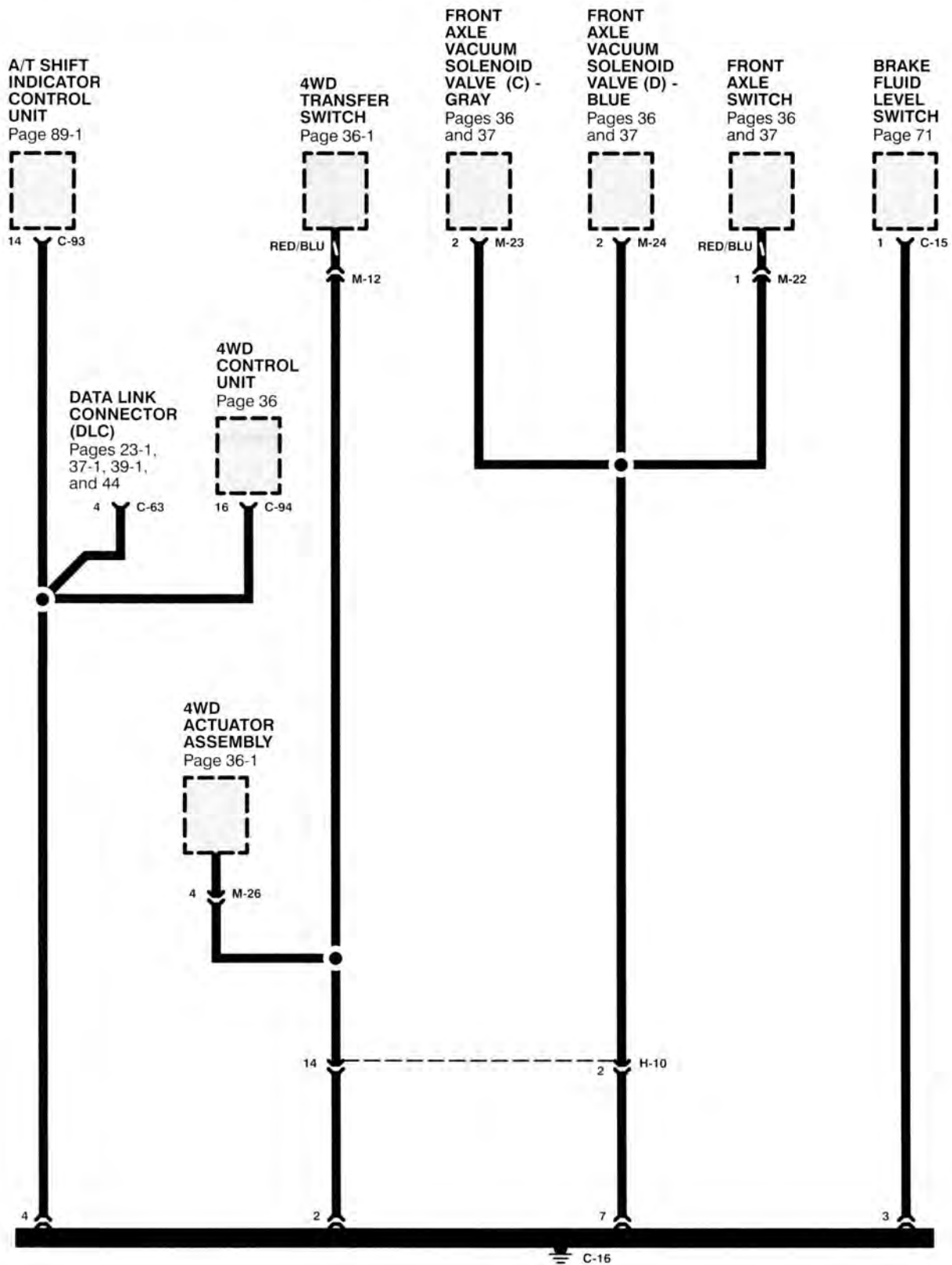
GROUND DISTRIBUTION: C-16

Circuit Schematic

NOTE: Wires shown without color codes are black.



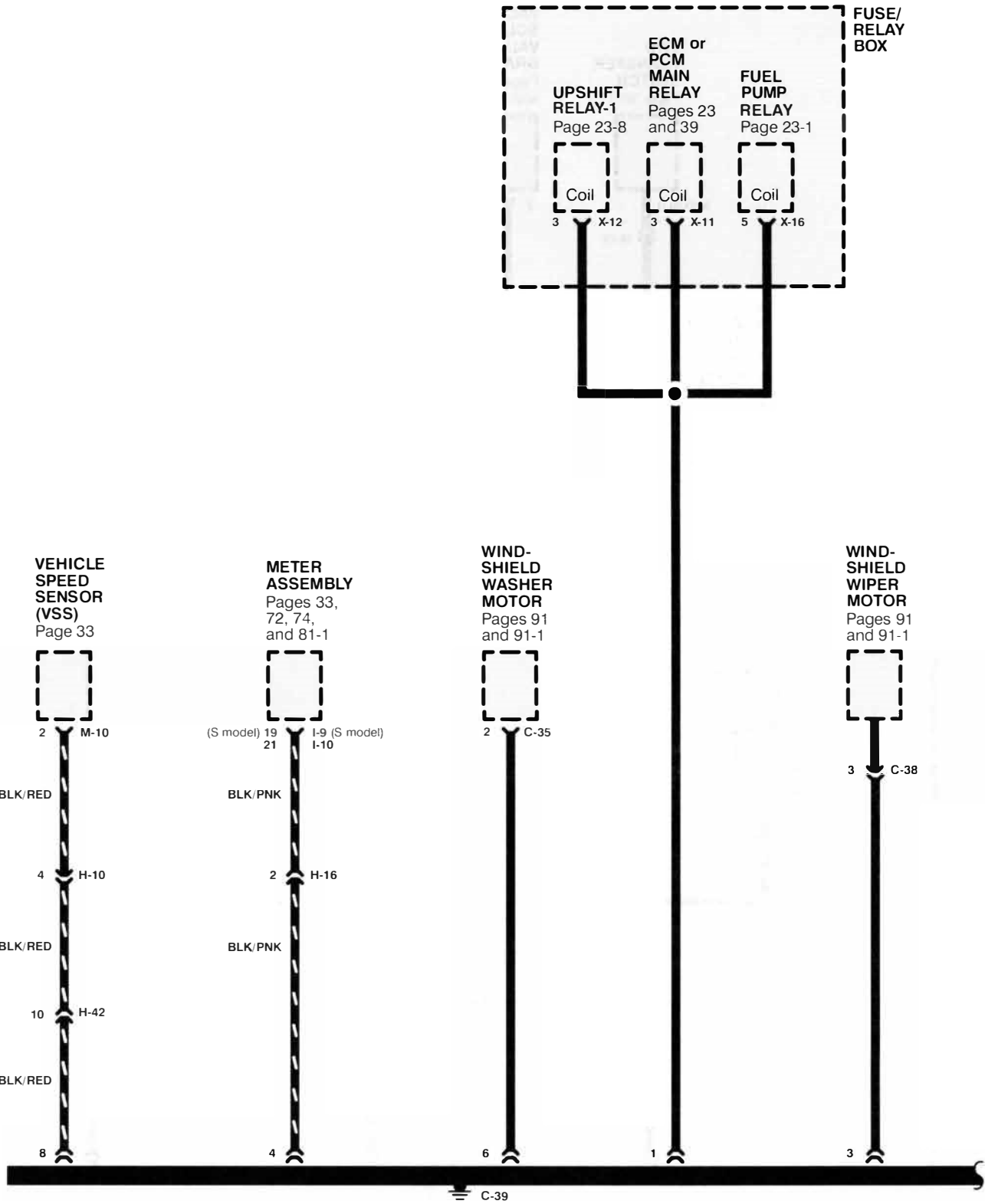
NOTE: Wires shown without color codes are black.



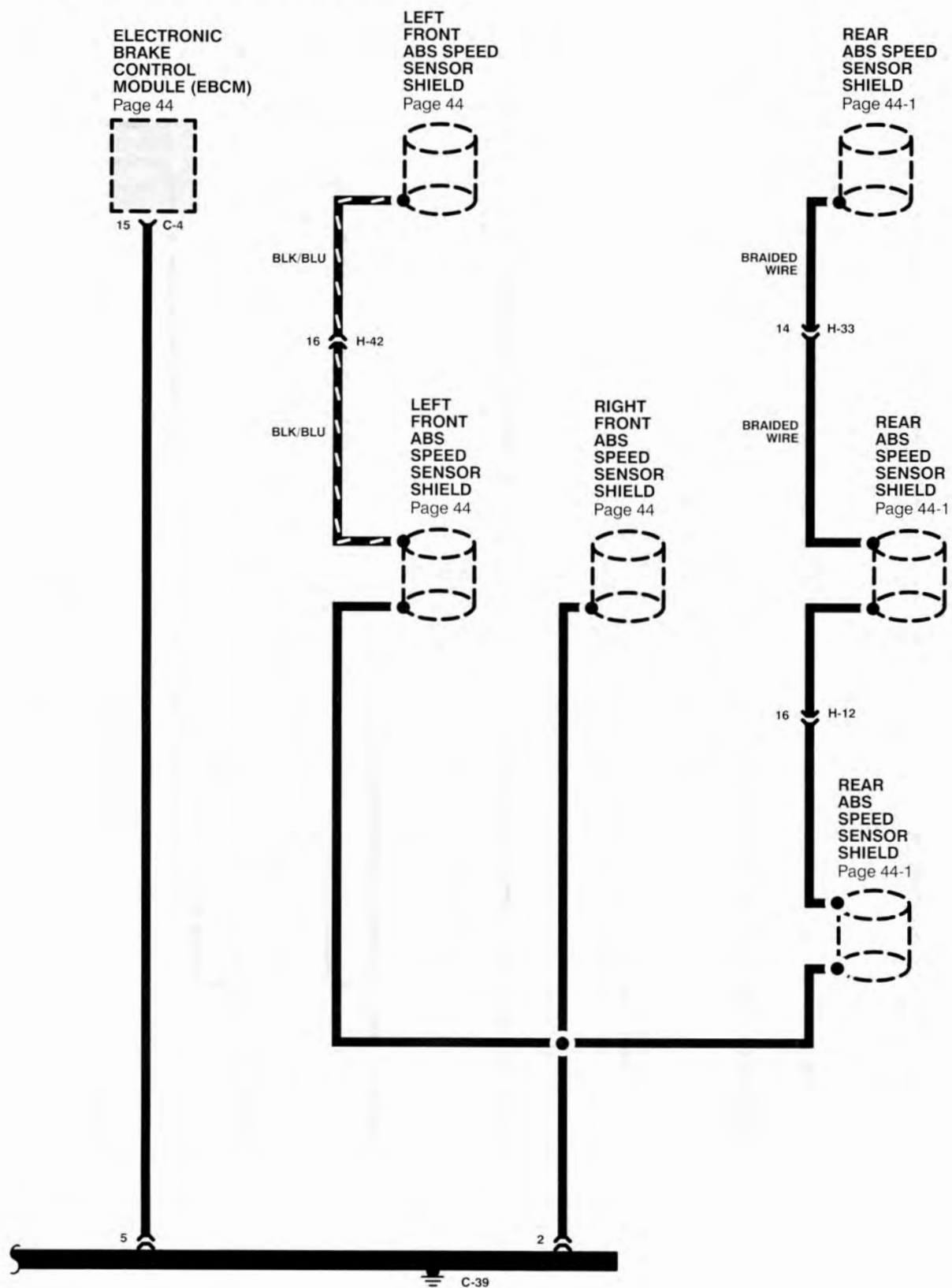
GROUND DISTRIBUTION: C-39

Circuit Schematic

NOTE: Wires shown without color codes are black:



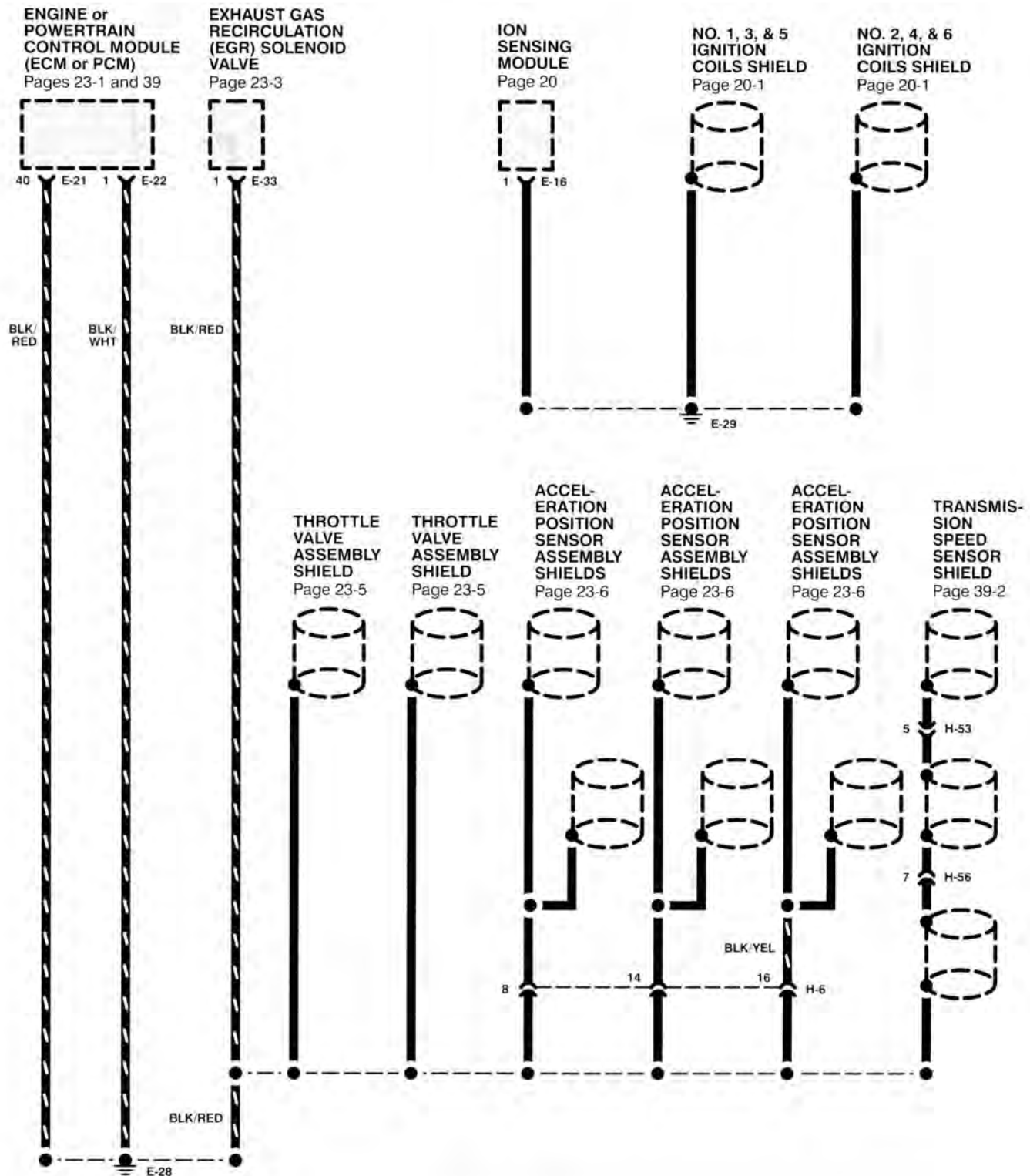
NOTE: Wires shown without color codes are black.



GROUND DISTRIBUTION: E-28 AND E-29

Circuit Schematic

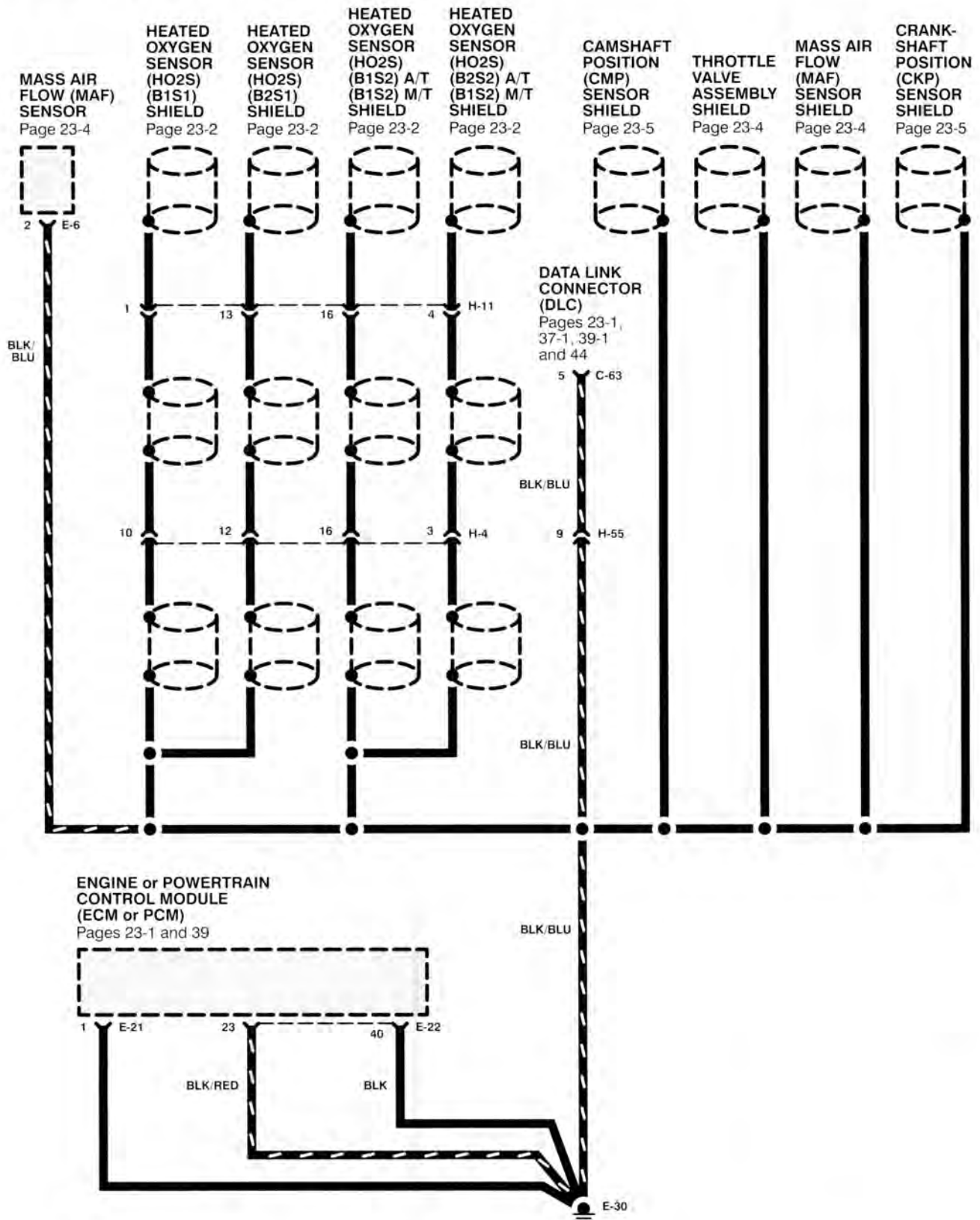
NOTE: Wires shown without color codes are black.



GROUND DISTRIBUTION: E-30

Circuit Schematic

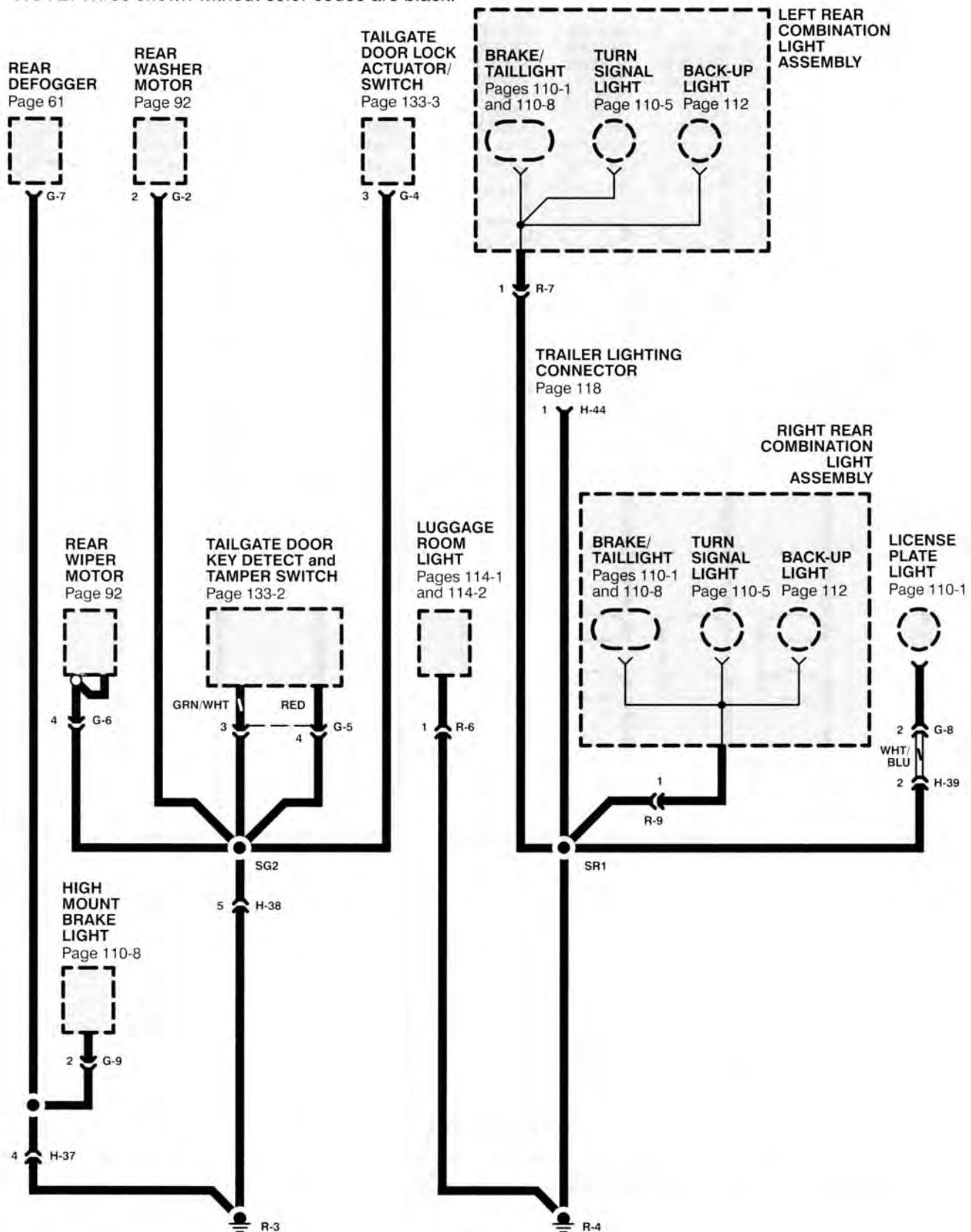
NOTE: Wires shown without color codes are black.



GROUND DISTRIBUTION: R-3 AND R-4

Circuit Schematic

NOTE: Wires shown without color codes are black.



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Alarm and Relay Control	
Unit	Behind right kick panel 116
4WD Actuator Assembly	On rear of transmission 119
4WD Control Unit	Behind front console 62
4WD Transfer Switch	Beneath vehicle, on right side of transfer case 42
A/T Shift Indicator Control	
Unit	Below I/P, left of steering column 74
Anti-theft and Keyless Entry	
Control Unit	Behind front console 62
Brake Fluid Level Switch	Left rear of engine compartment 39
Dash Fuse Box	Behind left dash side trim panel 55
Data Link Connector (DLC)	
C63 (16-BLK)	Left I/P lower cover, behind access cover 47
Driver's Seat Belt Switch	In left front seat belt buckle
Driver's Seat Recline Motor	
and Switch	In driver's seatback 113
Driver's Seat Tilt Motor	
and Switch (Front)	Underside of driver's seat 106
Driver's Seat Tilt Motor	
and Switch (Rear)	Underside of driver's seat 106
ECM or PCM Main Relay	In fuse/relay box 38
Electronic Brake Control	
Module (EBCM)	Right front of engine compartment 41
Engine or Powertrain Control	
Module (ECM or PCM)	Behind front console 60
Exhaust Gas Recirculation	
(EGR) Solenoid Valve	Right side of engine 16
Flasher Unit	On top of dash fuse box 60
Front Axle Switch	Left center of front axle 17
Front Axle Vacuum Solenoid	
Valve (D) - Blue	Center of front axle 9
Front Axle Vacuum Solenoid	
Valve (C) - Gray	Center of front axle 9
Fuel Pump	Beneath rear of vehicle, in top of fuel tank
Fuel Pump Relay	In fuse/relay box 38
Fuel Tank Unit	Beneath rear of vehicle, in right front of fuel tank 124
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Heater and A/C Relay	In dash fuse box 56
Hi-Max Relay	Right side of I/P, behind glove box 72
In-car Temperature Sensor ...	Center of I/P 64
ION Sensing Module	Top of engine 28
Left Front Door Key Detect	
and Tamper Switch	Inside left front door, part of outside handle assembly 79
Left Front Door Lock	
Actuator/Switch	Inside rear of left front door, behind trim pad 80
Left Front Door Lock	
Key Switch	Inside left front door, part of door lock assembly 80

GROUND DISTRIBUTION

Component Location Index

(Refer to Section 201 for photographs.)

Component (cont'd)	Photo No.
Limit Switch	Right rear underside of roof
Mass Air Flow (MAF) Sensor ..	Left front corner of engine compartment 13
Power Transistor	Right side of I/P behind glove box 72
Power Window Relay	In dash fuse box 56
Power Transistor	Right side of I/P, behind glove box 72
Rear Washer Motor	Inside left tailgate door, behind trim pad 93
Rear Wiper Motor	Inside left tailgate door, behind trim pad 91
Right Front Door Key Detect and Tamper Switch	Inside right front door, part of outside handle assembly 79
Right Front Door Lock Actuator/Switch	Inside rear of right front door, behind trim pad 80
Right Front Door Lock Key Switch	Inside rear of right front door, part of door lock assembly 80
Right Front Seat Recline Motor and Switch	In right front seatback 113
Shift Lock Controller	Below front console 65
Starter Relay	In fuse/relay box 38
Sunroof Control Unit/Motor ...	Rear underside of roof 88
Tailgate Door Key Detect and Tamper Switch	Inside left tailgate door, behind trim pad 92
Tailgate Door Lock Actuator/Switch	Inside left tailgate door, behind trim pad 91
Trailer Lighting Connector H-44 (6-WHT)	Below left rear corner of vehicle, behind grommet 102
Upshift Relay-1	In fuse/relay box 34
Vehicle Speed Sensor (VSS) (A/T)	Beneath center of vehicle, on rear of transmission 129
Vehicle Speed Sensor (VSS) (M/T)	Beneath center of vehicle, on rear of transmission 119
Windshield Washer Motor	Right front corner of engine compartment, in washer fluid reservoir 122
Windshield Wiper Motor	Right rear corner of engine compartment 45

Component Location Index

(Refer to Section 201 for photographs.)

Connector

B-12 (16-WHT)	Below I/P, right of steering column	58
B-24 (3-BLK)	Below driver's seat	104
B-32 (6-WHT)	Below rear of front console	66
B-52 (14-BLK)	Below I/P, right of steering column	58
C-22 (4-GRY)	Behind left front combination light assembly	3
C-24 (2-GRY)	Behind left fog light	4
C-29 (2-GRY)	Behind right fog light	4
C-31 (4-GRY)	Behind right front combination light assembly	3
C-38 (6-WHT)	Right rear of engine compartment	45
D-3 (8-WHT)	In top of left front door	78
D-6 (4-GRY)	Inside left front door, behind trim pad	79
D-8 (3-WHT)	Inside left front door, behind trim pad	80
D-12 (8-WHT)	In top of right front door	78
D-16 (4-GRY)	Inside right front door, behind trim pad	79
D-17 (3-WHT)	Inside right front door, behind trim pad	80
F-4 (2-BLK)	Beneath rear of vehicle, right of fuel tank	124
G-5 (4-GRY)	Inside left tailgate door, behind trim pad	92
G-6 (4-WHT)	Inside left tailgate door, behind trim pad	91
G-7 (1-BLK)	On right side of glass, in left tailgate door	93
G-8 (2-WHT)	Inside right tailgate door, behind trim pad	95
G-9 (2-WHT/BLK)	Inside top center of left tailgate door	97
H-4 (16-BLK)	Left rear of engine compartment	33
H-10 (16-BLU)	Left front of engine compartment	27
H-11 (16-BLK)	Left front of engine compartment	27
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket	100
H-16 (22-WHT)	Behind right dash side trim panel	120
H-18 (18-WHT)	Behind right dash side trim panel, in access hole	54
H-19 (8-BLK)	Behind right dash side trim panel, in access hole	54
H-21 (8-WHT)	Below I/P, above right dash side trim panel, on bracket	100
H-22 (18-WHT)	Behind left dash side trim panel, in access hole	54
H-23 (8-BLK)	Behind left dash side trim panel, in access hole	54
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket	71
H-29 (3-BLU)	In left center pillar	81
H-33 (20-WHT)	In floor, below right front seat	110
H-35 (3-BLU)	In right center pillar	81
H-37 (4-GRY)	Left rear of luggage room	89
H-38 (10-WHT)	Left rear of luggage room	89
H-39 (2-WHT)	Right rear of luggage room	96
H-42 (16-BLU)	Right front of engine compartment	31
H-45 (6-BLK/WHT)	Center of roof, above map lights	85
H-46 (6-WHT)	Below left side of left front seat	105
H-47 (6-WHT)	Below right side of right front seat	110
H-48 (16-BLK)	Behind right dash side trim panel	120
H-53 (16-GRN)	Left front of engine compartment	27
H-55 (16-BLK)	Right rear of engine compartment	59
I-9 (30-GRN)	On left top of meter assembly	53
I-10 (22-GRN)	On right top of meter assembly	53
I-19 (2-WHT)	Behind cigarette lighter	135

GROUND DISTRIBUTION

Component Location Index

(Refer to Section 201 for photographs.)

Connector (cont'd)

L-1 (3-WHT)	Center of roof, above map lights	85
L-4 (2-BLK)	Left front of roof	49
L-5 (6-WHT)	Above multi-meter	26
L-6 (2-BLK)	Right front of roof	49
M-12 (1-WHT)	Beneath center of vehicle, top right side of transmission	42
M-22 (2-BRN)	Center of front axle	17
M-26 (6-GRY)	On rear of transmission	119
R-6 (3-WHT)	Center rear of roof	87
R-7 (6-WHT/BLK)	Behind left taillight assembly	103
R-9 (6-WHT/BLK)	Behind right taillight assembly	103
T-2 (2-WHT)	Underside of driver's seat	108
T-3 (3-WHT)	Underside of driver's seat	108
T-5 (3-GRY)	Underside of driver's seat	109
T-8 (4-WHT)	Underside of driver's seat	107
T-9 (2-WHT)	Underside of right front seat	112
T-10 (4-WHT)	Underside of right front seat	111
T-11 (6-BLU)	Underside of driver's seat	108
T-12 (6-BLU)	Underside of right front seat	112

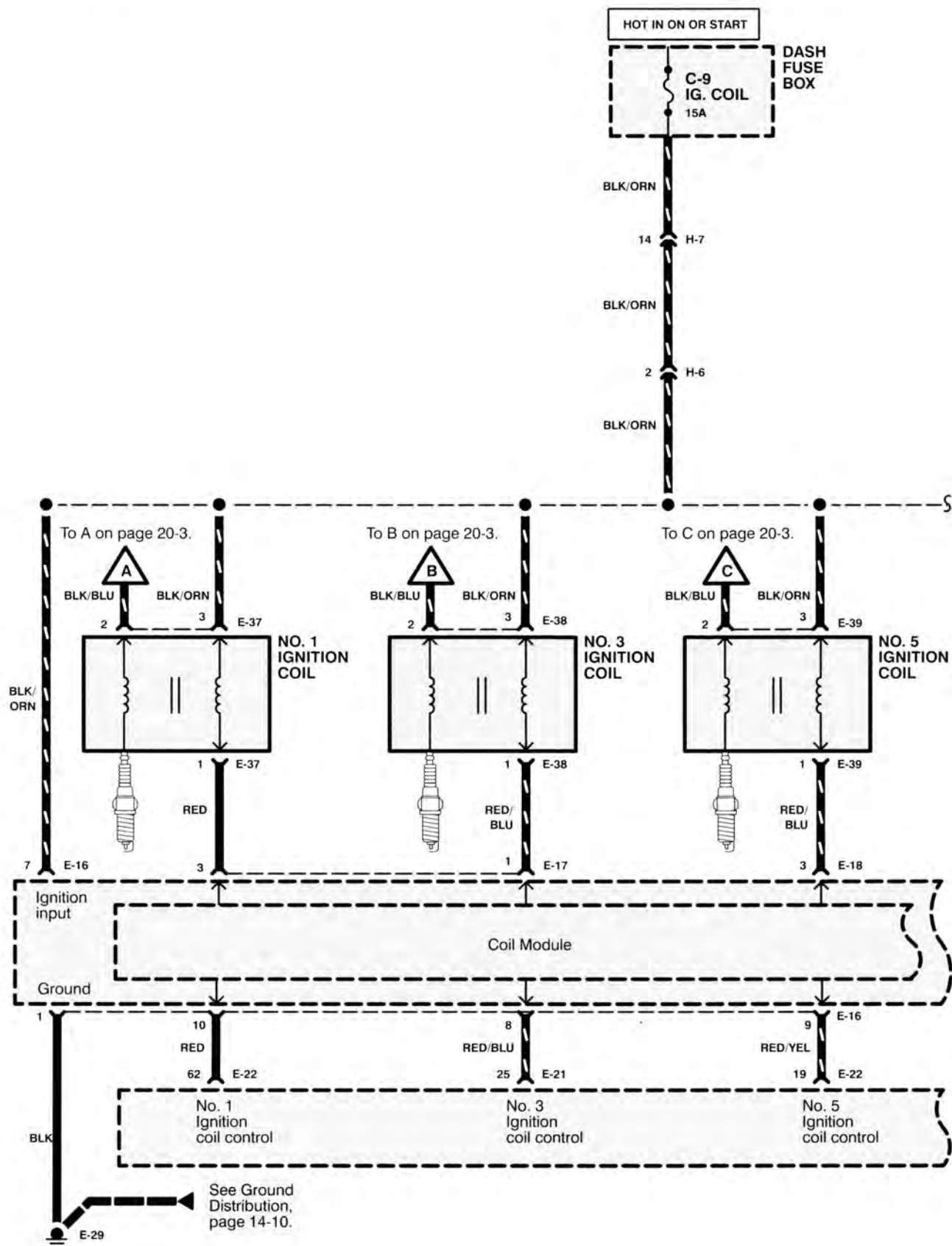
Ground

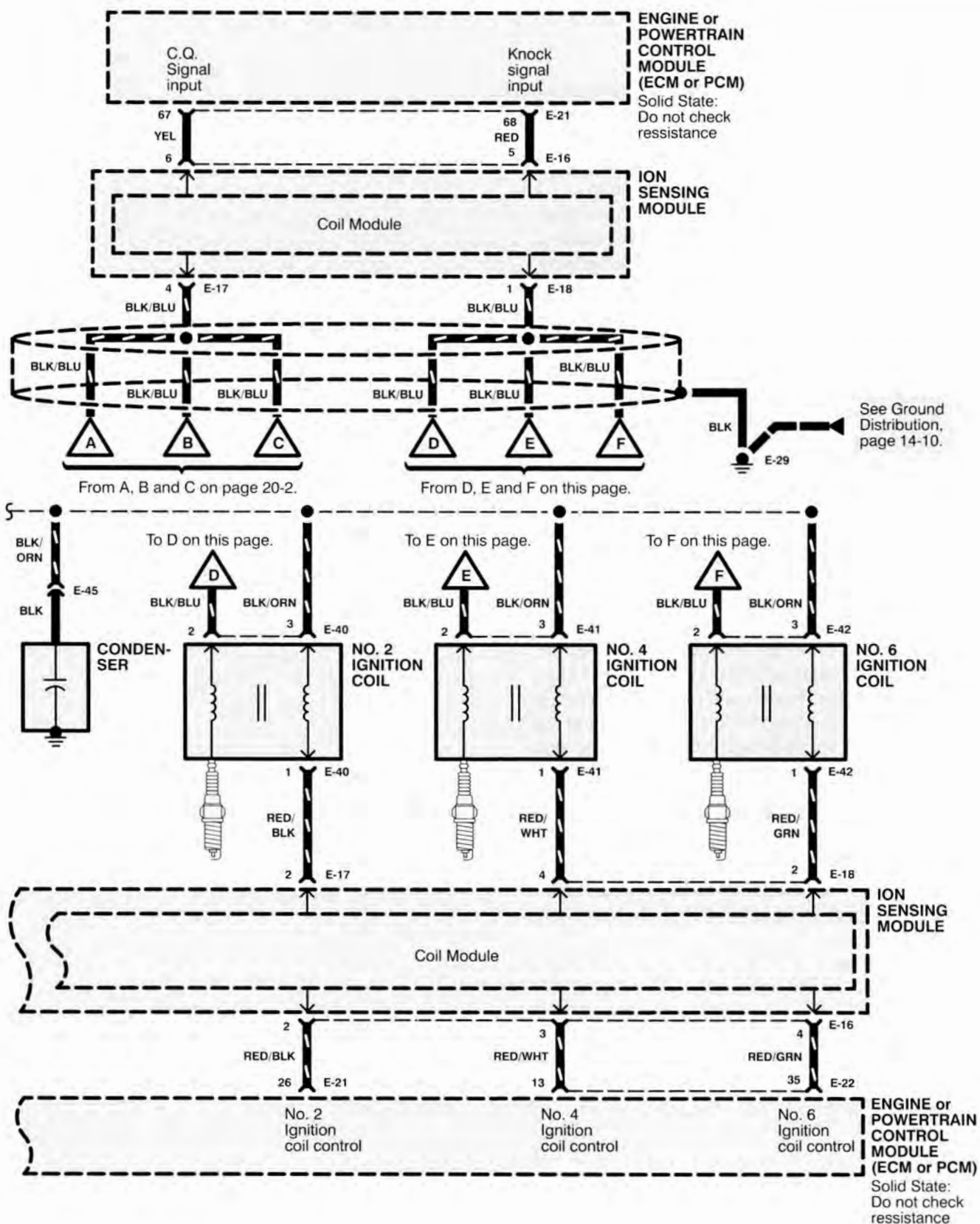
B-1	Above right dash side trim panel	116
B-2	Above right dash side trim panel	116
B-18	Behind top of left dash side trim panel	71
B-19	Behind top of left dash side trim panel	71
B-26	Below rear of center console	67
C-16	Left rear corner of engine compartment, on inner fender panel	39
C-39	Right rear corner of engine compartment, on inner fender panel	45
E-28	Top left rear of engine	32
E-29	Top left of engine	32
E-30	Top right rear of engine	16
R-3	Left side of luggage room	90
R-4	Left side of luggage room	90

THIS PAGE INTENTIONALLY LEFT BLANK

IGNITION SYSTEM

Circuit Schematic





IGNITION SYSTEM

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Condenser	Top right front of engine 10
Dash Fuse Box	Behind left dash side trim panel 55
Engine or Powertrain Control Module (ECM or PCM)	Right side of engine compartment 60
ION Sensing Module	Top of engine 28
No. 1 Ignition Coil	Right side of engine 11
No. 2 Ignition Coil	Left side of engine 12
No. 3 Ignition Coil	Right side of engine 11
No. 4 Ignition Coil	Left side of engine 12
No. 5 Ignition Coil	Right side of engine 11
No. 6 Ignition Coil	Left side of engine 12
Connector	
E-45 (1-BLK)	Top right front of engine
H-6 (16-BLU)	Left side of engine compartment 33
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket 69
Ground	
E-29	Top left side of engine 32

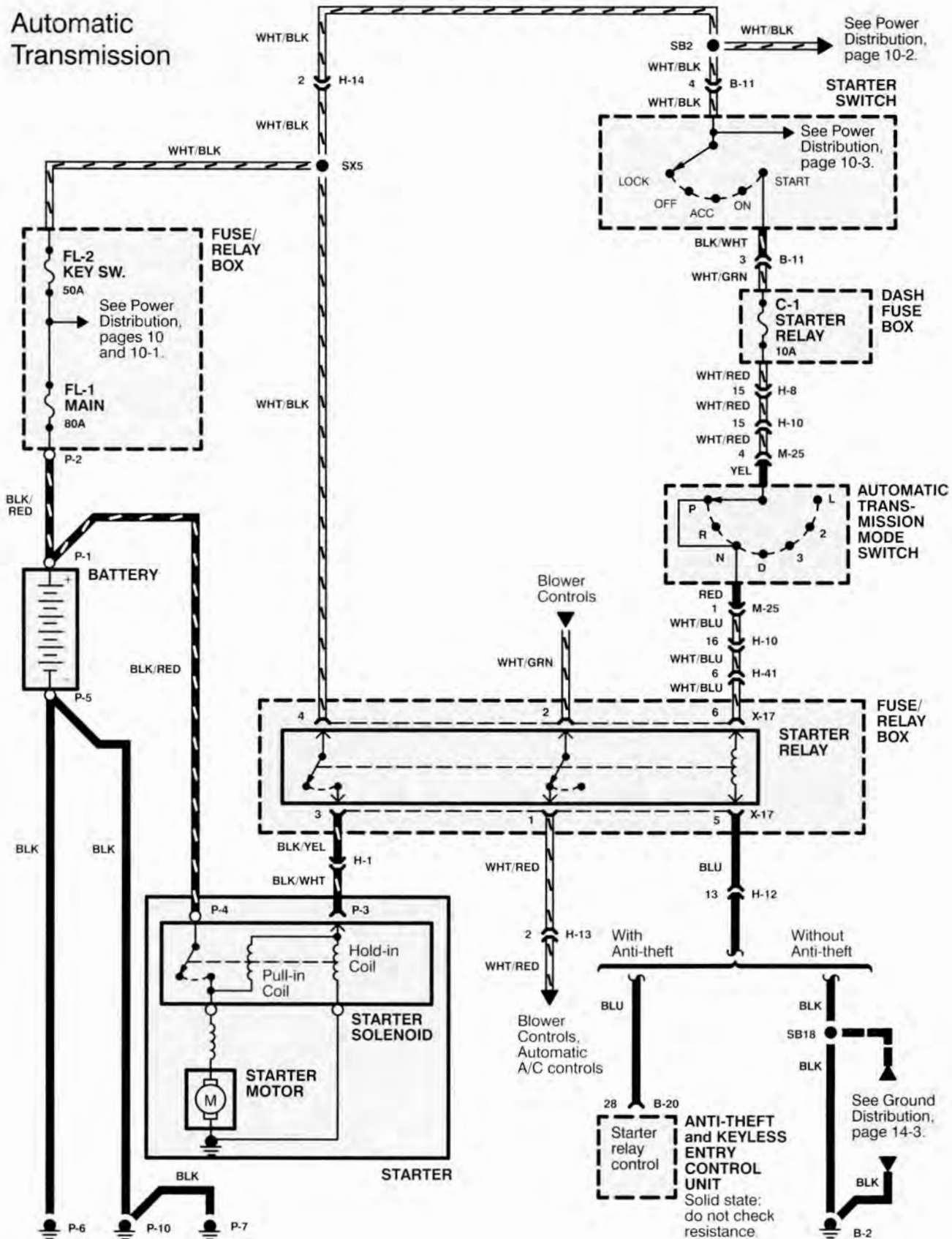
Circuit Operation

With the starter switch in ON or START, battery voltage is applied to the Engine (M/T) or Powertrain (A/T) Control Module (ECM) or (PCM), the ION sensing module, various engine sensors, and the ignition coils. When the engine is cranked to start, the crank shaft position (CKP) sensor sends timing information directly to the ECM/PCM, which sends a signal to the ION sensing module, which breaks the ground path in the primary of the ignition coils, thus creating a high voltage secondary impulse which fires the spark plugs, and the engine starts. The ECM/PCM receives information such as firing order and starting timing at each ignition coil from the CKP sensor. The ECM/PCM relies on information from various engine sensors to determine correct ignition timing.

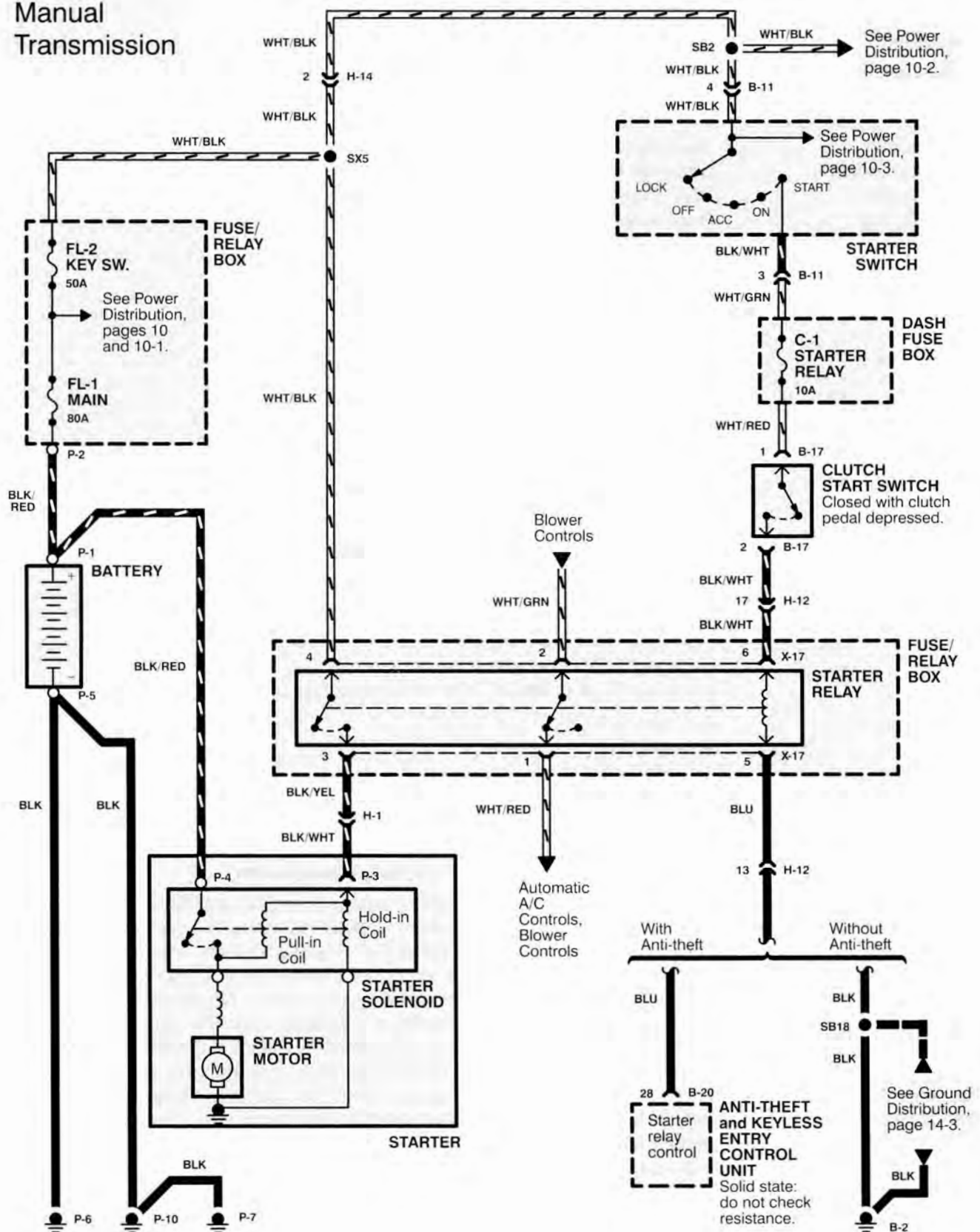
THIS PAGE INTENTIONALLY LEFT BLANK

STARTING SYSTEM

Circuit Schematic



Manual Transmission



STARTING SYSTEM

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Anti-theft and Keyless Entry	
Control Unit	Behind front console 62
Automatic Transmission	
Mode Switch	Beneath vehicle, on left side of transmission 43
Clutch Start Switch	Below I/P, top of clutch pedal support 57
Dash Fuse Box	Behind left dash side trim panel 55
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Starter	Lower left rear of engine 24
Starter Relay	In fuse/relay box 38
Starter Switch	Underside of steering column 46
Connector	
B-11 (8-WHT)	Below I/P, right of steering column 58
H-1 (1-GRY)	Right front of engine compartment 40
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-10 (16-BLU)	Left front of engine compartment 27
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-13 (6-BLK)	Below I/P, above right dash side trim panel, on bracket 100
H-14 (2-RED)	Below I/P, above right dash side trim panel, on bracket 115
H-41 (16-BLK)	Right front of engine compartment 31
P-3 (1-BLK)	On starter solenoid 24
Ground	
B2	Above top of left dash side trim panel 116
P-6	Right side of engine compartment, on rear of battery tray 40
P-7	Lower right front of engine compartment 5
P-10	Lower right side of engine, near power steering pump
Terminal	
P-2	In fuse/relay box 36
P-4	On starter solenoid 24

Circuit Operation

Manual Transmission

Battery voltage is applied at all times from the positive battery terminal to the starter switch and the normally open starter solenoid contacts. When the starter switch is turned to START and the clutch start switch is closed, battery voltage is applied to the starter relay. The starter relay energizes and applies battery voltage to the starter solenoid coils. The starter solenoid coils energize, the starter solenoid contact closes, and battery voltage is applied to the starter motor. The starter motor engages to start the engine. If the vehicle is equipped with an anti-theft system, the anti-theft and keyless entry control unit grounds the starter relay.

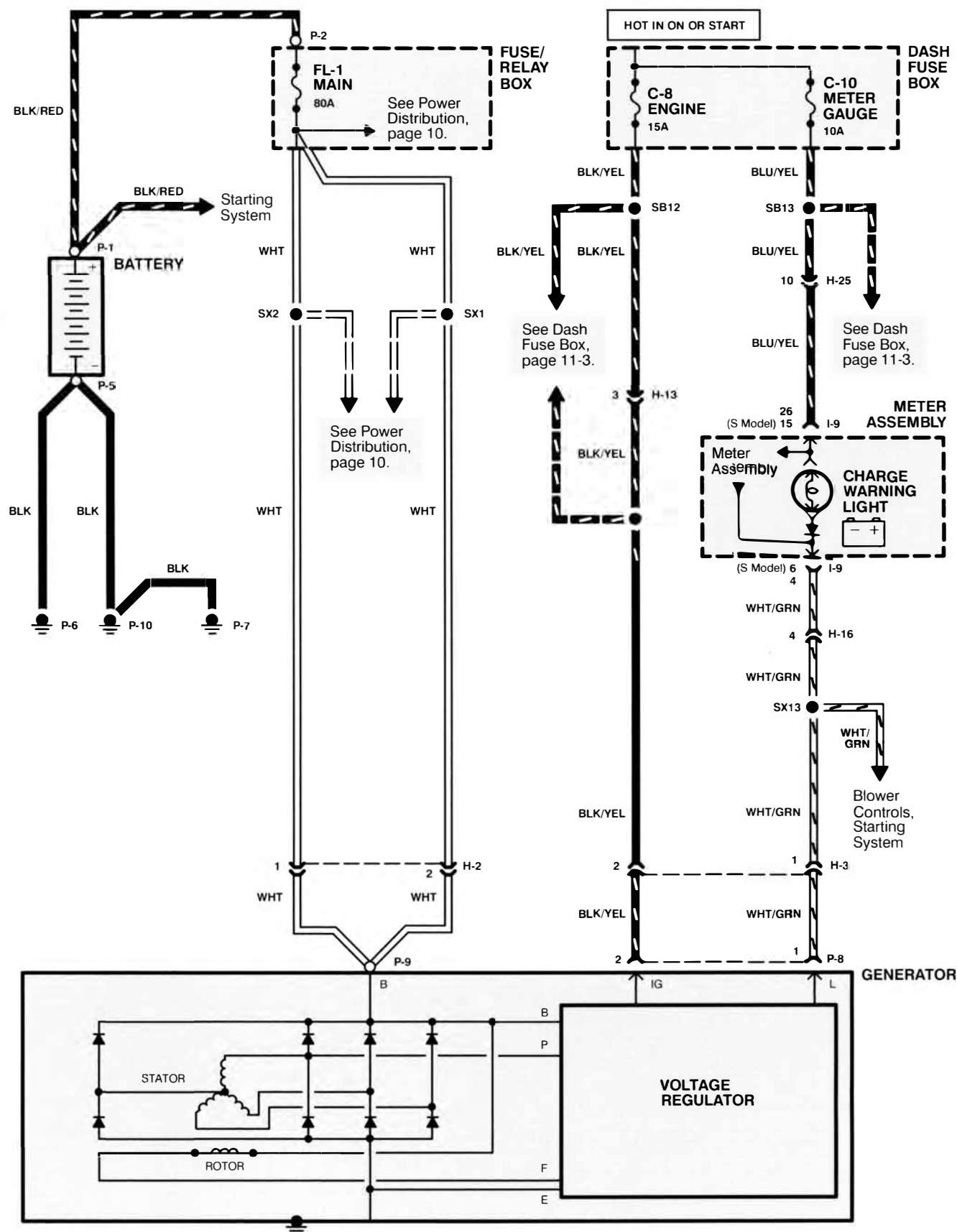
Automatic Transmission

Battery voltage is applied at all times from the positive battery terminal to the starter switch and the normally open starter solenoid contacts. When the starter switch is turned to START and the automatic transmission mode switch is in PARK or NEUTRAL, battery voltage is applied to the starter relay. The starter relay energizes and applies battery voltage to the starter solenoid coils. The starter solenoid coils energize, the starter solenoid contact closes, and battery voltage is applied to the starter motor. The starter motor engages to start the engine. If the vehicle is equipped with an anti-theft system, the anti-theft and keyless entry control unit grounds the starter relay.

THIS PAGE INTENTIONALLY LEFT BLANK

CHARGING SYSTEM

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Dash Fuse Box	Behind left dash side trim panel 55
Engine or Powertrain Control Module (ECM or PCM)	Right side of engine compartment 60
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Generator	Lower right front of engine 5
Connector	
H-2 (2-GRY)	Right side of engine compartment 40
H-3 (3-BLK)	Right side of engine compartment 40
H-13 (6-BLK)	Below I/P, above right dash side trim panel, on bracket 100
H-16 (22-WHT)	Behind right dash side trim panel 120
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-41 (16-BLK)	Right front of engine compartment 31
I-9 (30-GRN)	On left top of meter assembly 53
Ground	
P-6	Right side of engine compartment, on rear of battery tray 40
P-7	Lower right front of engine compartment 5
P-10	Lower right side of engine, near power steering pump
Terminal	
P-2	In fuse/relay box 36

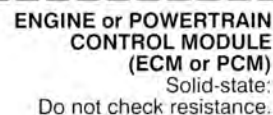
Circuit Operation

The generator generates an AC voltage in its windings as it is belt-driven by the engine. The rectifier converts this AC voltage to DC.

The voltage regulator, a component which is included in the generator frame, has a primary function of controlling the generator's output to meet electrical system requirements. This regulator controls the charge warning light.

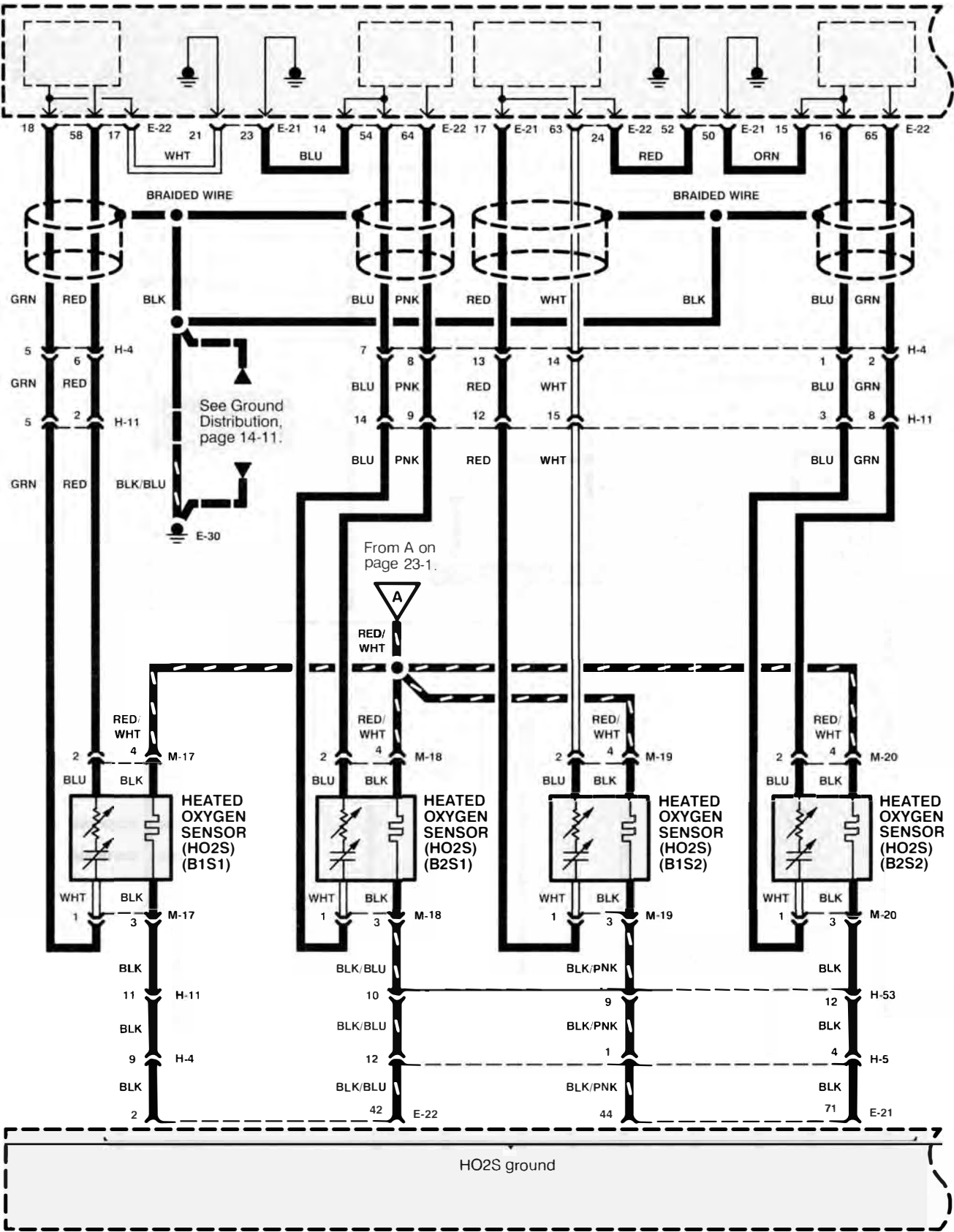
Fuse C-10 supplies battery voltage to the charge warning light. With the engine not running and the starter switch in ON, terminal L of the regulator is grounded internally, providing ground for the charge warning light, and the indicator lights up. With the engine running and the generator charging, terminal L voltage rises and the indicator goes out. If the generator fails to charge, terminal L grounds internally, which then provides ground for the charge warning light, and the indicator lights up.

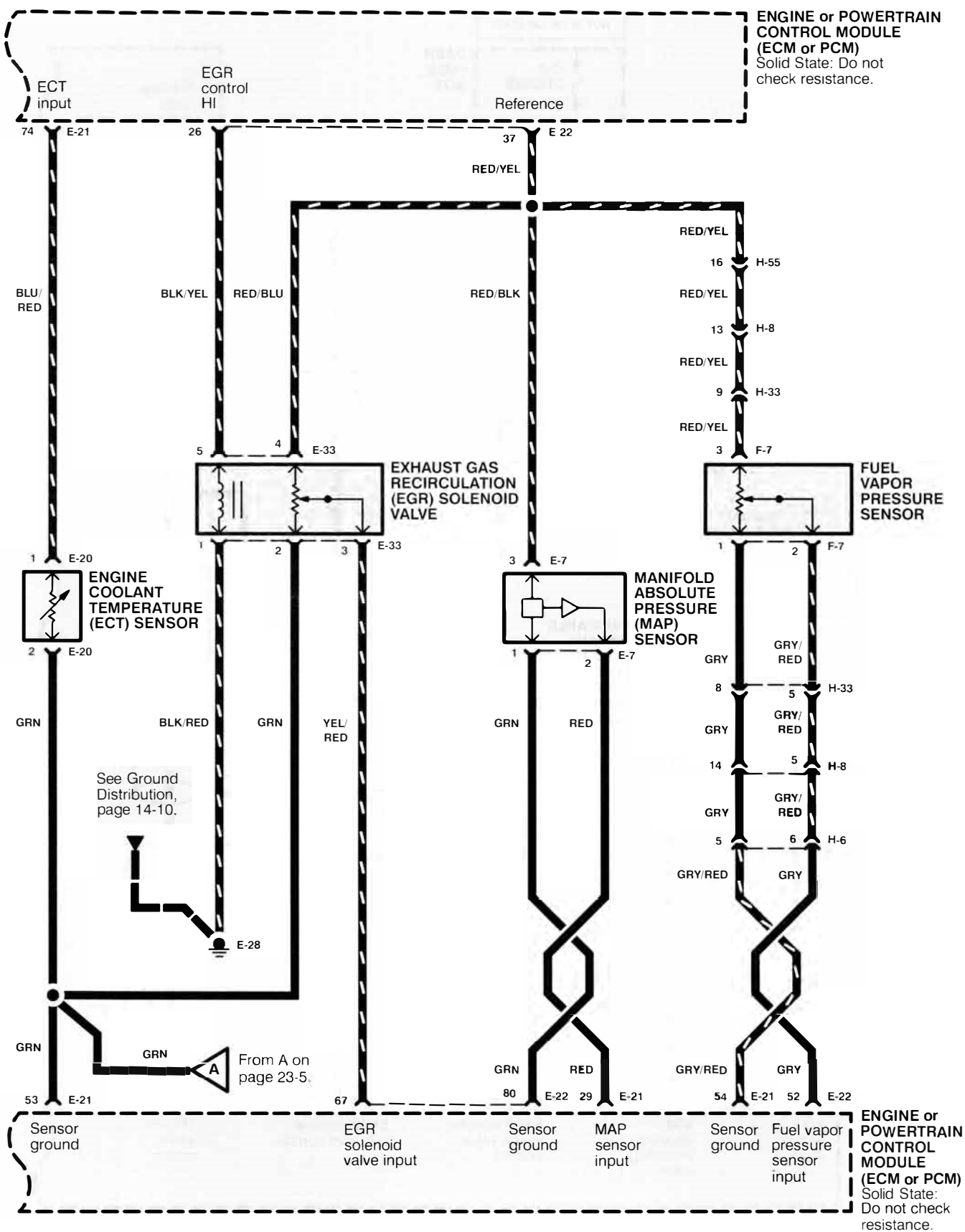
Circuit Schematic



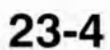
ENGINE CONTROLS

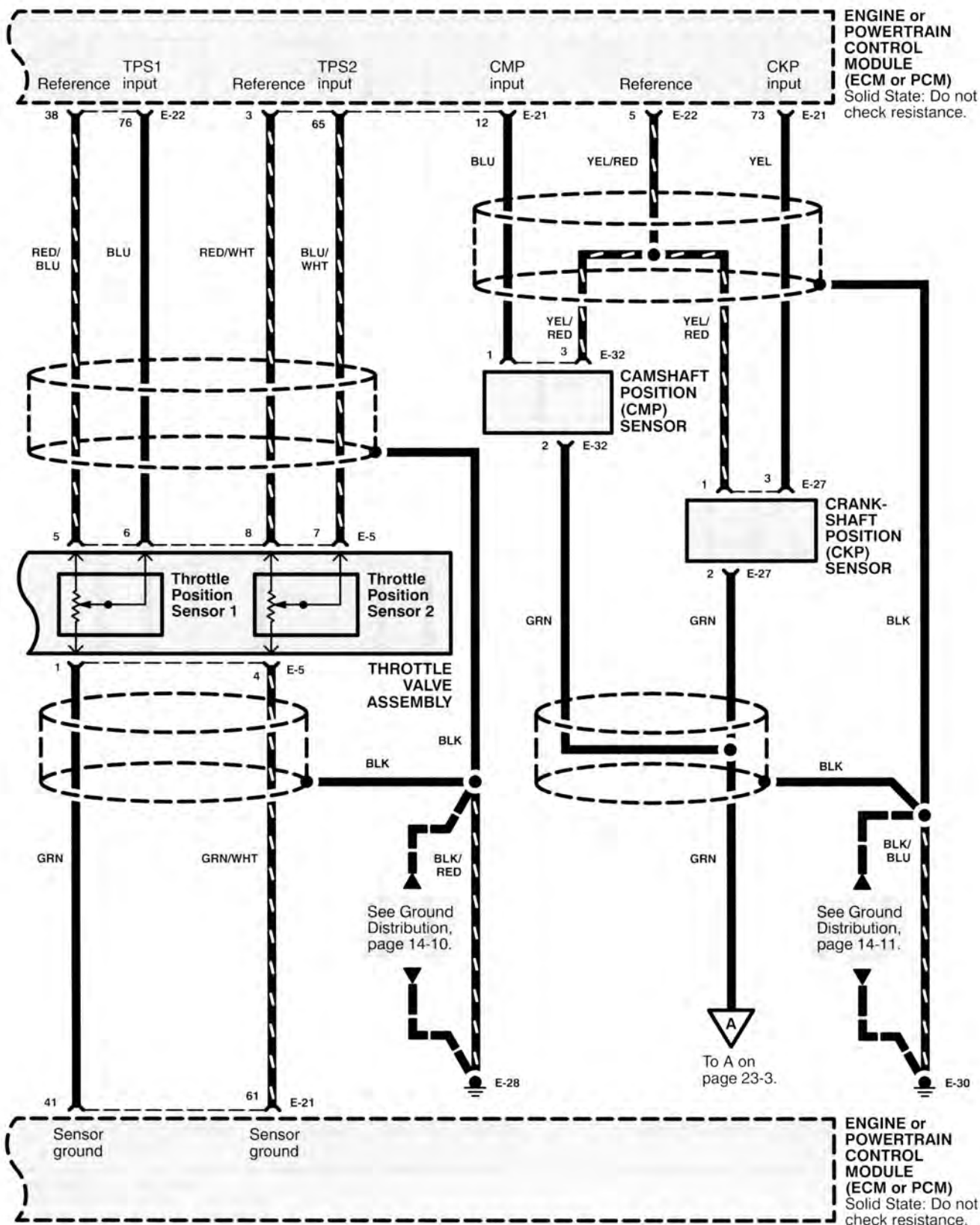
Circuit Schematic





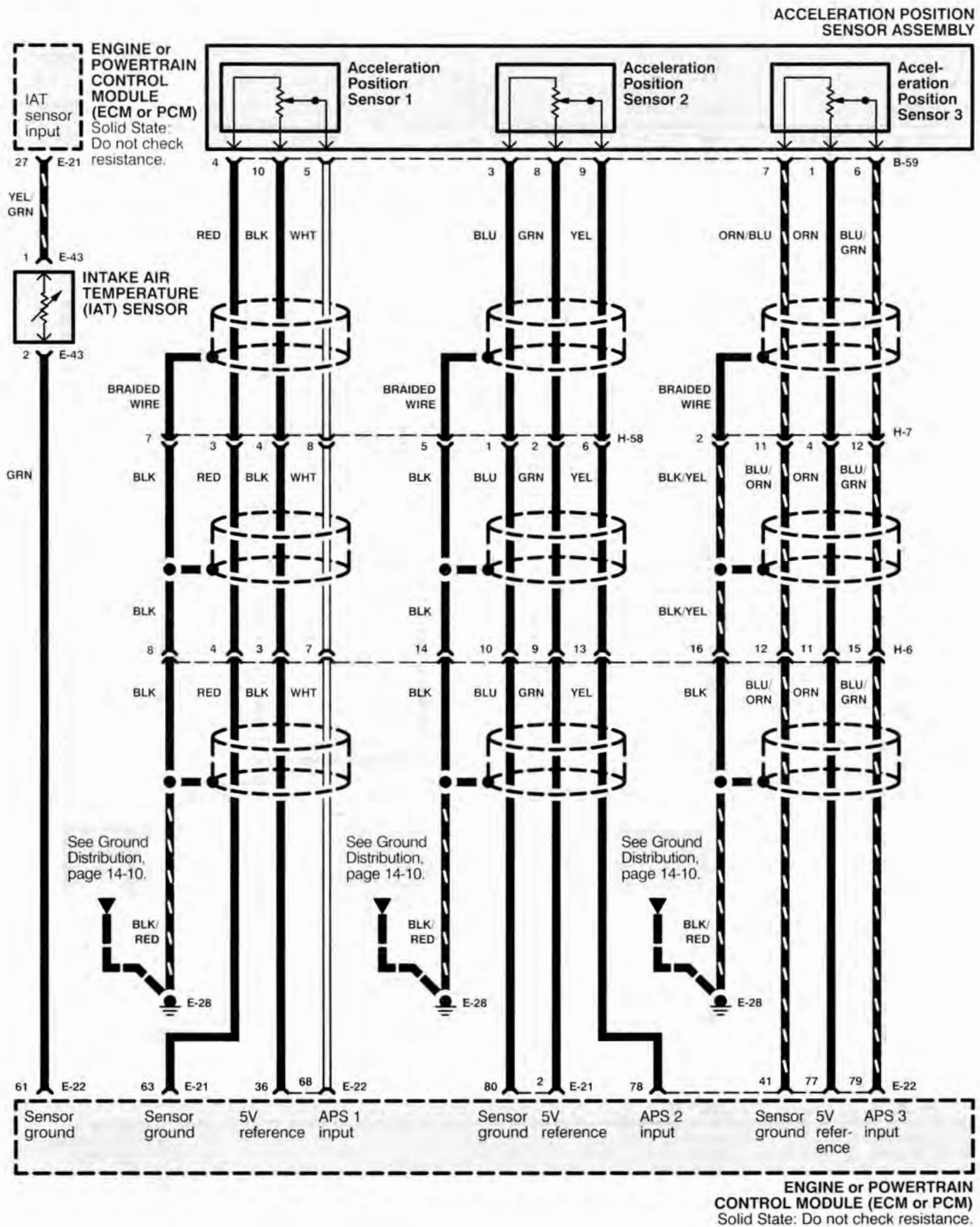
Circuit Schematic

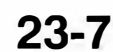




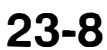
ENGINE CONTROLS

Circuit Schematic

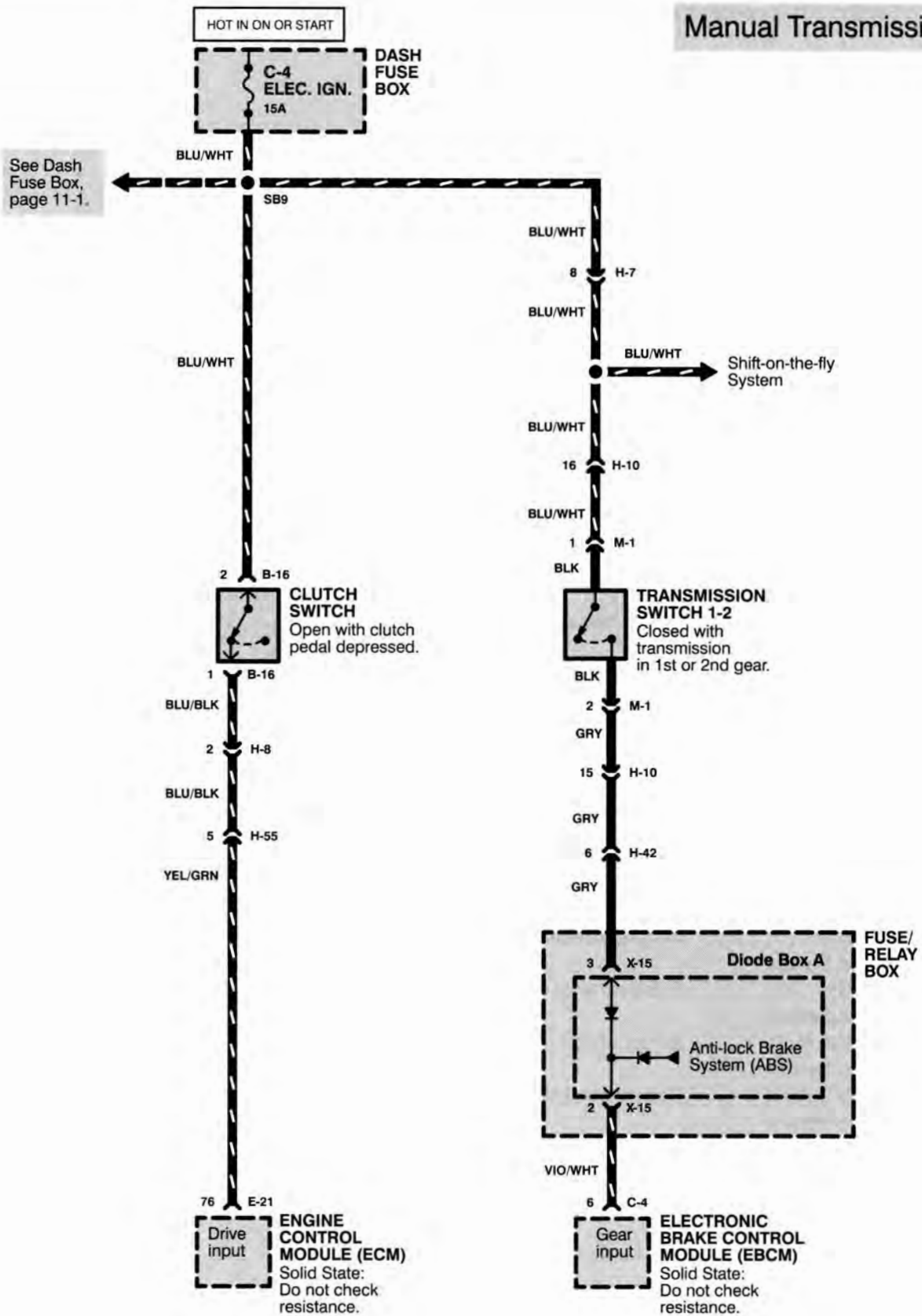




Circuit Schematic



Manual Transmission



ENGINE CONTROLS

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Acceleration Position	
Sensor Assembly	Above accelerator pedal 123
Camshaft Position (CMP)	
Sensor	Left rear of engine 14
Clutch Switch	Below I/P, top of clutch pedal support 57
Crankshaft Position (CKP)	
Sensor	Lower right side of engine, above oil pan 18
Dash Fuse Box	Behind left dash side trim panel 55
Data Link Connector (DLC)	
C63 (16-BLK)	Left I/P lower cover, behind access cover 47
ECM or PCM Main Relay	In fuse/relay box 38
Electronic Brake Control	
Module (EBCM)	Right front of engine compartment 41
Engine Control Module	
(ECM)	Right side of engine compartment 60
Engine Coolant Temperature	
(ECT) Sensor	Top front of engine 10
Engine or Powertrain Control	
Module (ECM or PCM)	Right side of engine compartment 60
Variable Intake Manifold (VIM)	
Vacuum Switching Valve	On left rear of engine 32
Evaporative Emission (EVAP)	
Canister Cut Valve	Underneath vehicle, above right side of rear axle 130
Evaporative Emission (EVAP)	
Canister Purge Valve	Top left front of engine 22
Exhaust Gas Recirculation	
(EGR) Solenoid Valve	Top right rear of engine 16
Fuel Pump	Beneath rear of vehicle, in top of fuel tank
Fuel Pump Relay	In fuse/relay box 38
Fuel Vapor Pressure Sensor	On top of fuel tank
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Heated Oxygen Sensor	
(HO2S) (B1S1)	In right exhaust down pipe 21
Heated Oxygen Sensor	
(HO2S) (B2S1)	In left exhaust down pipe 25
Heated Oxygen Sensor	
(HO2S) (B1S2) (A/T)	In rear of right catalytic converter 29
Heated Oxygen Sensor	
(HO2S) (B1S3) (M/T)	Rear of catalytic converter 121
Heated Oxygen Sensor	
(HO2S) (B1S2) (M/T)	Forward of catalytic converter 6
Heated Oxygen Sensor	
(HO2S) (B2S2) (A/T)	In rear of left catalytic converter 30
Intake Air Temperature	
(IAT) Sensor	Top front of engine, in air intake hose 10
Manifold Absolute Pressure	
(MAP) Sensor	Top rear of engine 16
Mass Air Flow (MAF) Sensor	Left front corner of engine compartment 13

Component Location Index

(Refer to Section 201 for photographs.)

Component (cont'd)

Photo No.

Power Steering Pressure

(PSP) Switch	Lower left front of engine compartment	
Taillight Relay	In fuse/relay box	35
Throttle Valve Assembly	Top front of engine	22
Throttle Valve Motor	Top front of engine	10
T.O.D. Control Unit	Below right front seat	125
Transmission Switch 1-2	Beneath vehicle, on right side of transmission	15
Upshift Relay-1	In fuse/relay box	34
Upshift Resistor	In fuse/relay box	34

Connector

B-12 (16-WHT)	Below I/P, right of steering column	58
E-4 (1-GRY)	Left front of engine	20
E-9 (7-GRY)	Left side of engine compartment, taped to harness	12
F-4 (2-BLK)	Beneath rear of vehicle, right of fuel tank	124
H-4 (16-BLK)	Left side of engine compartment	33
H-5 (16-GRN)	Left side of engine compartment	33
H-6 (16-BLU)	Left side of engine compartment	33
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket	69
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket	70
H-9 (20-BLK)	Below I/P, above left dash side trim panel, on bracket	70
H-10 (16-BLU)	Left front of engine compartment	27
H-11 (16-BLK)	Left front of engine compartment	27
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket	100
H-13 (6-BLK)	Below I/P, above right dash side trim panel, on bracket	100
H-16 (22-WHT)	Behind right dash side trim panel	120
H-24 (18-YEL)	Below I/P, above left dash side trim panel, on bracket	70
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket	71
H-33 (20-WHT)	In floor, below right front seat	110
H-41 (16-BLK)	Right front of engine compartment	31
H-42 (16-BLU)	Right front of engine compartment	31
H-53 (16-GRN)	Left front of engine compartment	27
H-55 (16-BLU)	Right side of engine compartment	59
H-57 (16-BLK)	Right side of engine compartment	59
H-58 (8-WHT)	Below I/P, above right dash side trim panel, on bracket	134
I-9 (30-GRN)	On left top of meter assembly	53
I-10 (22-GRN)	On right top of meter assembly	53
M-1 (2-GRY)	Beneath center of vehicle, top right side of transmission	15
M-17 (4-BLK)	Near heated oxygen sensor (HO2S) (B1S1)	
M-18 (4-BLK)	Near heated oxygen sensor (HO2S) (B2S1)	25
M-19 (4-BLK) (A/T)	Near heated oxygen sensor (HO2S) (B1S2)	29
M-19 (4-BLK) (M/T)	Near Heated Oxygen Sensor (HO2S) (B1S3)	121
M-20 (4-BLK) (A/T)	Near heated oxygen sensor (HO2S) (B2S2)	30
M-20 (4-BLK) (M/T)	Near heated oxygen sensor (HO2S) (B1S2)	30

ENGINE CONTROLS

Component Location Index

(Refer to Section 201 for photographs.)

Ground

B-19	Behind top of left dash side trim panel	71
B-26	Below rear of center console	67
C-16	Left rear corner of engine compartment, on inner fender panel	39
C-39	Right rear corner of engine compartment, on inner fender panel	45
E-28	Top left rear of engine	32
E-29	Top left front of engine	32
E-30	Top right rear of engine	16

Circuit Operation

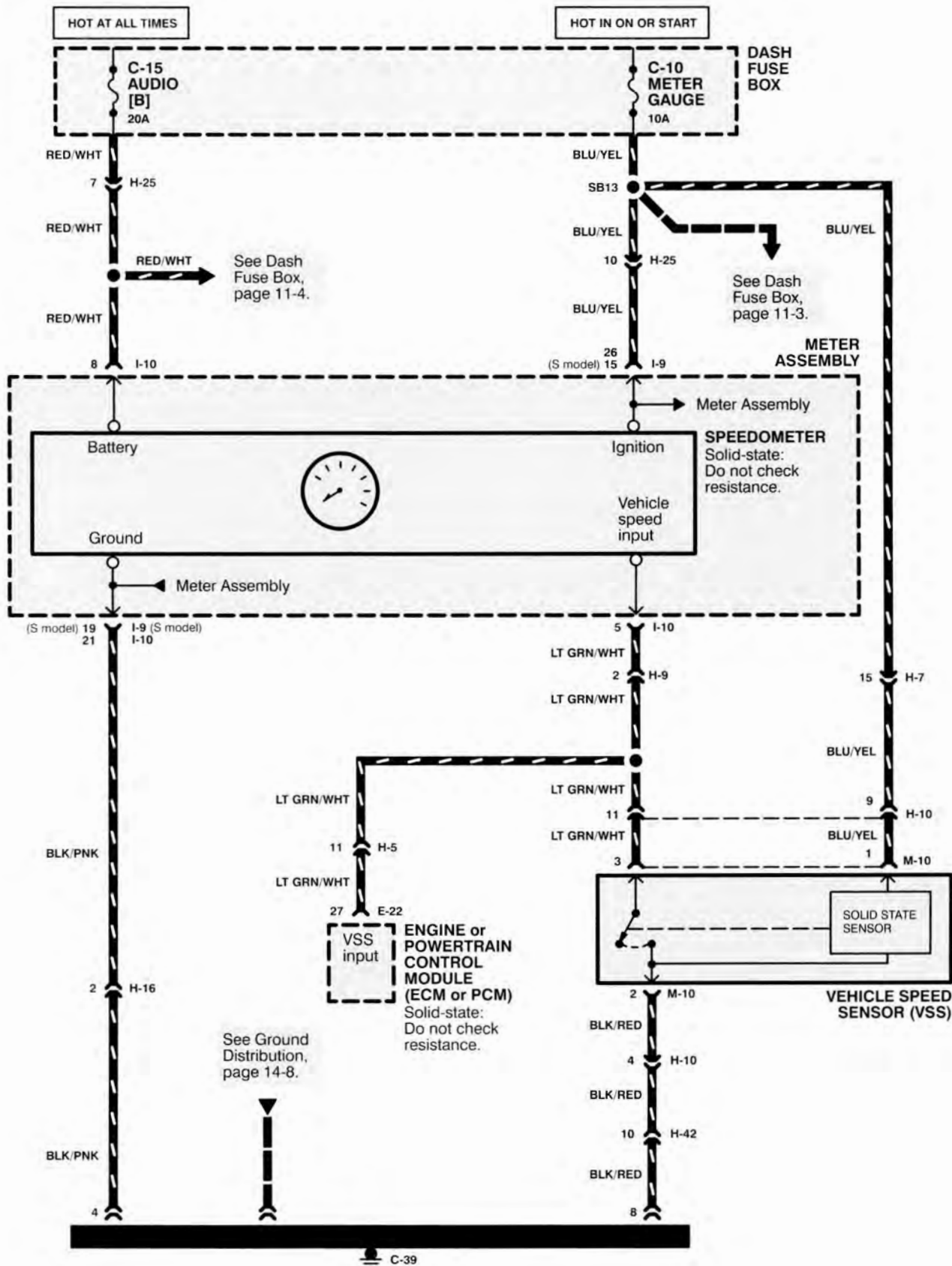
The engine or powertrain control module (ECM or PCM) receives inputs from the engine sensors and switches, controlling the functions of the engine. The ECM or PCM also turns on the "CHECK ENGINE" malfunction indicator light whenever a malfunction or abnormal engine performance is detected, and allows for diagnostic testing through the data link connector (DLC).

Refer to Section 6 of the Workshop Manual for further engine diagnosis.

THIS PAGE INTENTIONALLY LEFT BLANK

VEHICLE SPEED SENSOR (VSS)

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

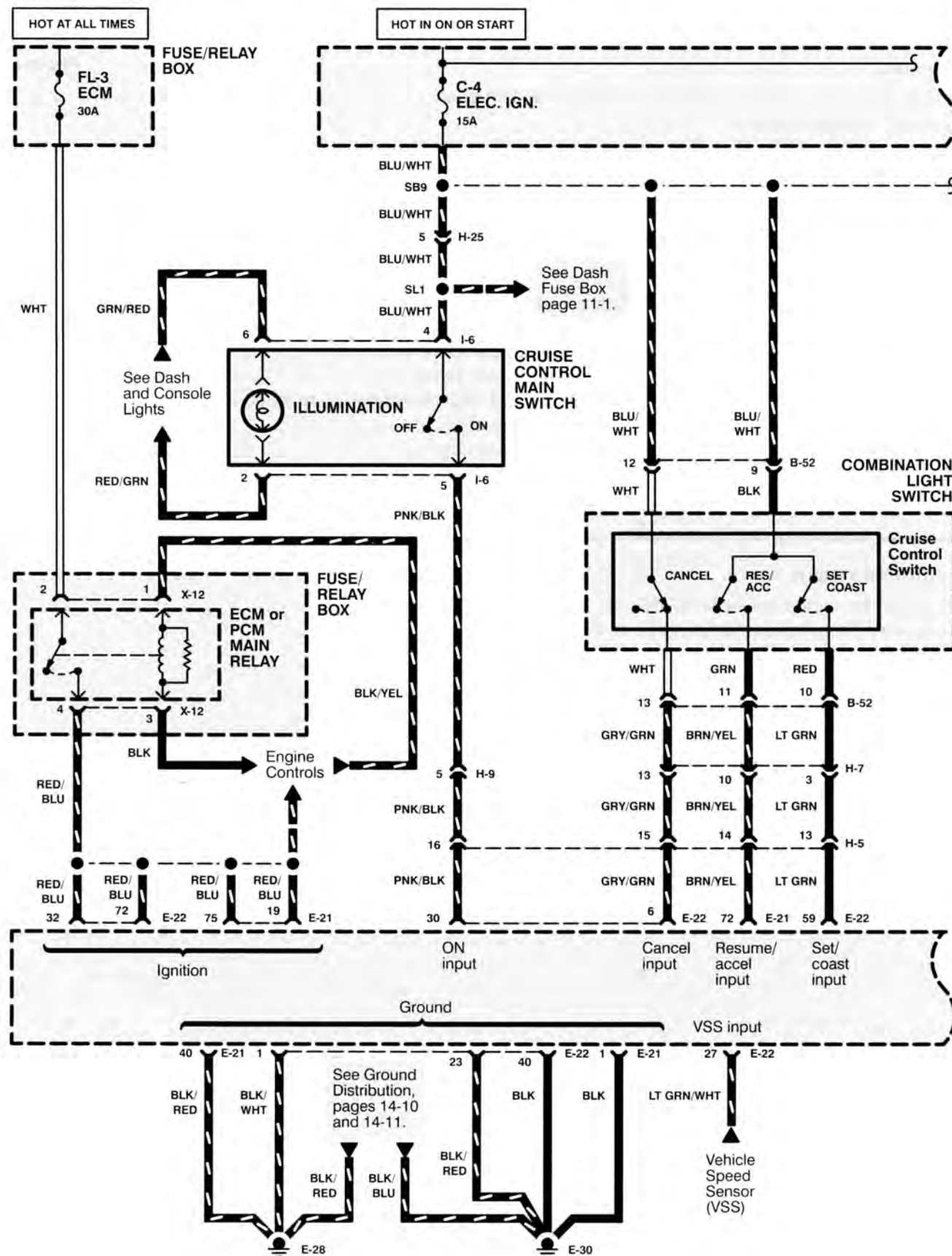
Component	Photo No.
Dash Fuse Box Behind left dash side trim panel	55
Engine or Powertrain Control Module (ECM or PCM)	Right side of engine compartment 60
Vehicle Speed Sensor (VSS) (A/T)	Beneath center of vehicle, on rear of transmission 129
Vehicle Speed Sensor (VSS) (M/T)	Beneath center of vehicle, on rear of transmission 119
Connector	
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket 69
H-9 (20-BLK)	Below I/P, above left dash side trim panel, on bracket 70
H-10 (16-BLU)	Left front of engine compartment 27
H-16 (22-WHT)	Behind right dash side trim panel 120
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
I-9 (30-GRN)	On left top of meter assembly 53
I-10 (22-GRN)	On right top of meter assembly 53
Ground	
C-39	Right rear corner of engine compartment, on inner fender panel 45

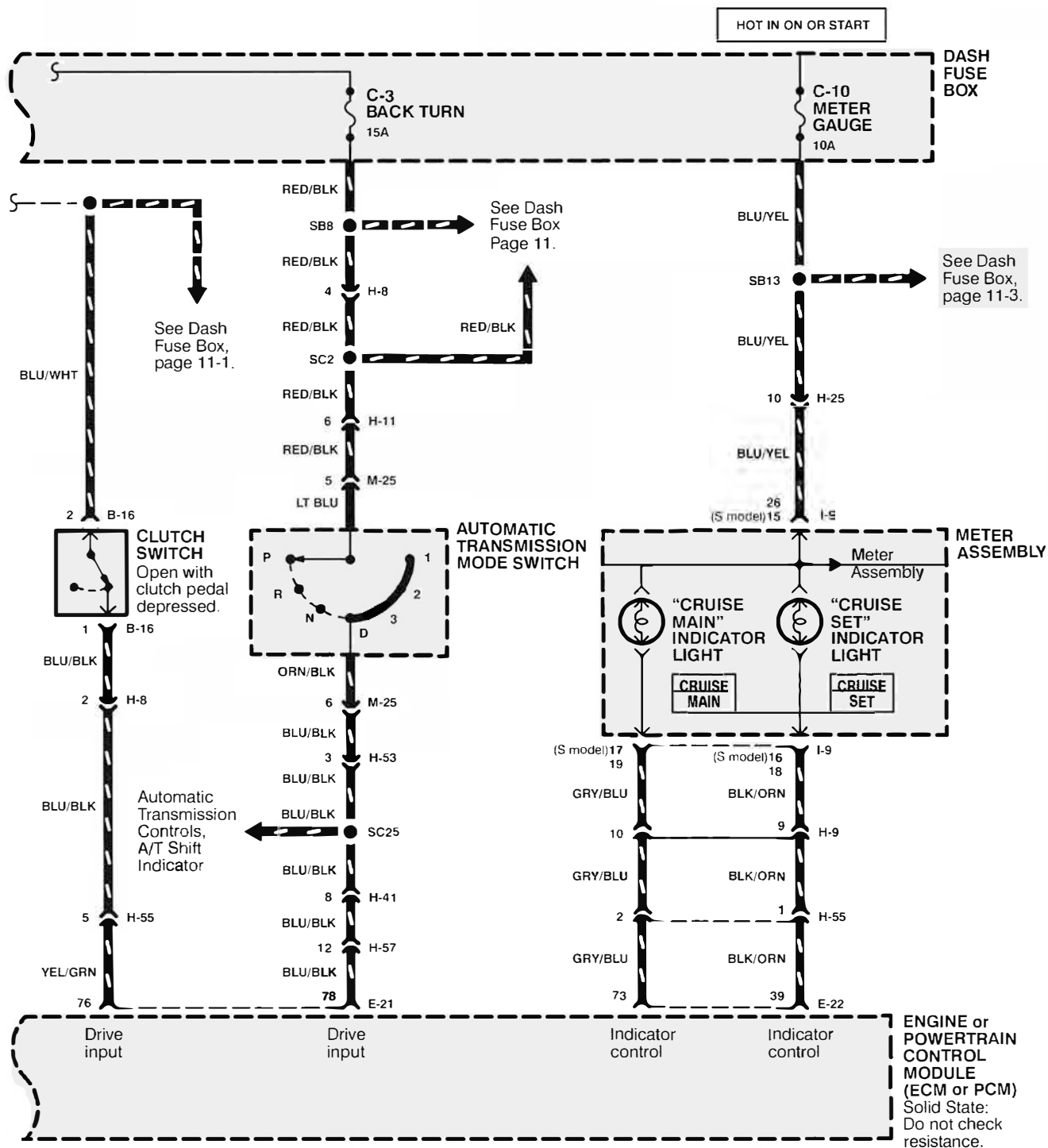
Circuit Operation

With the starter switch in ON or START, the VSS receives power. For every rotation, the VSS outputs four pulses to the engine (M/T) or powertrain (A/T) control module (ECM or PCM), and the speedometer to gauge speed.

CRUISE CONTROL

Circuit Schematic

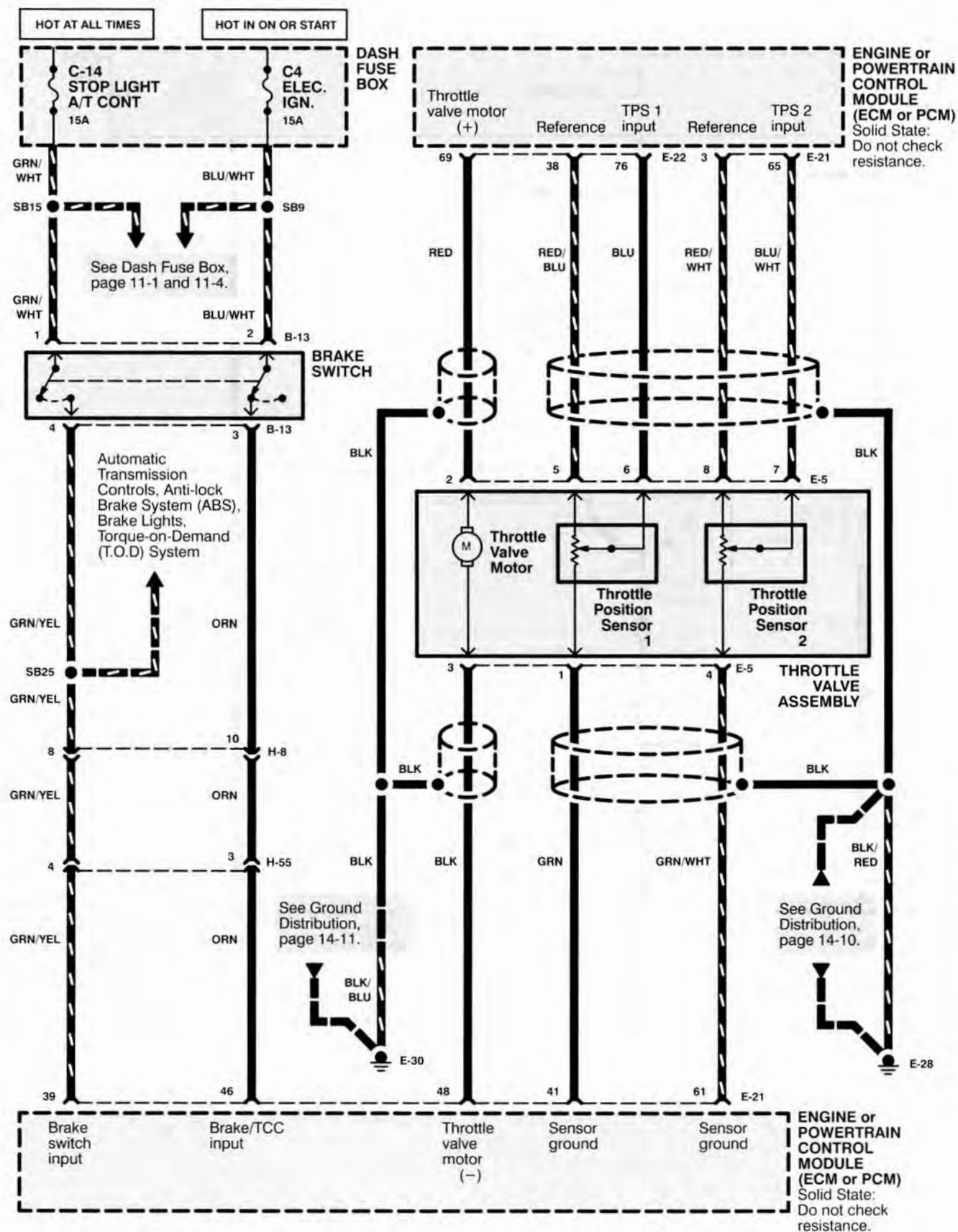




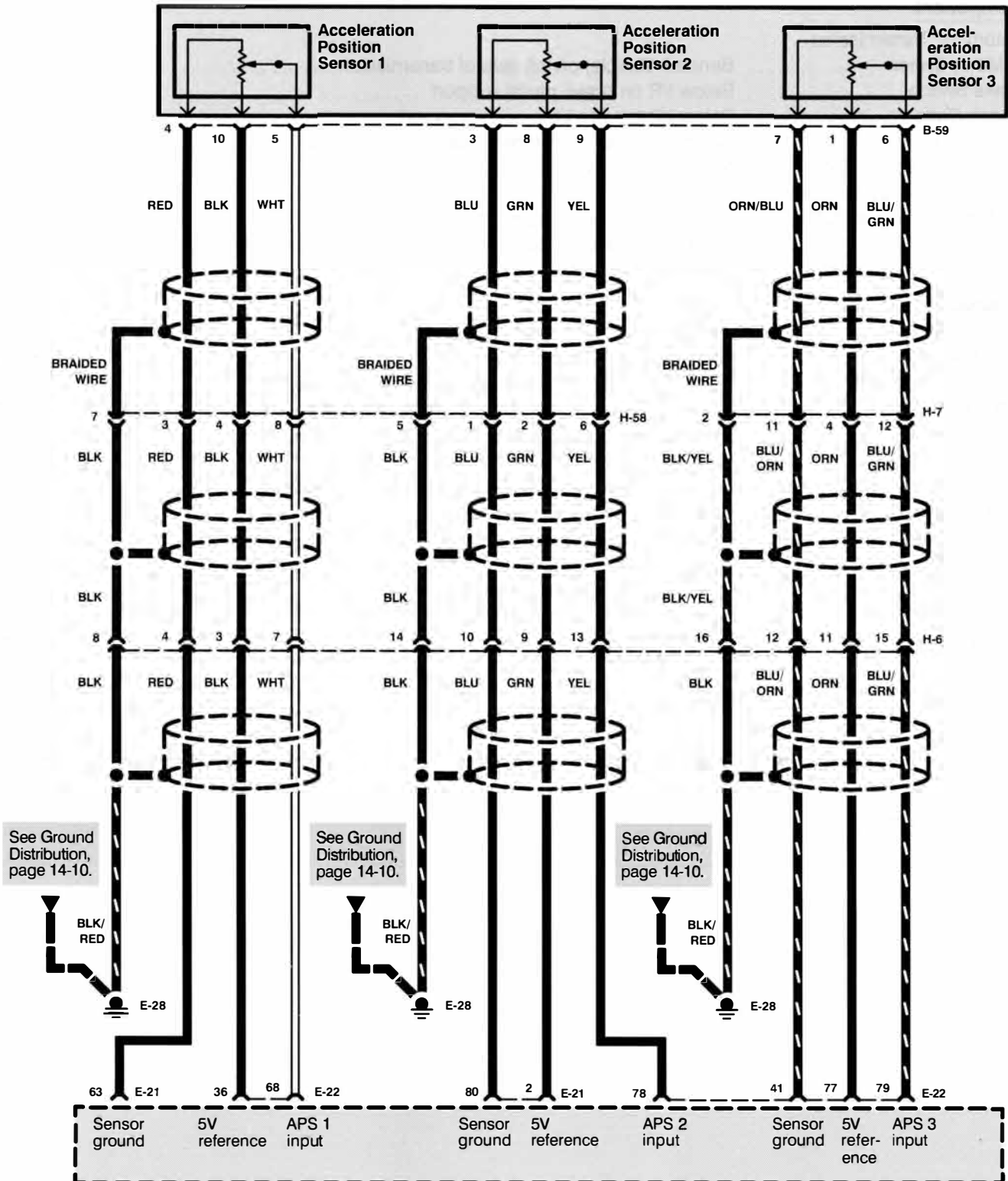
(cont'd)

CRUISE CONTROL

Circuit Schematic



ACCELERATION POSITION SENSOR ASSEMBLY



ENGINE or POWERTRAIN
CONTROL MODULE (ECM or PCM)
Solid State: Do not check resistance.

CRUISE CONTROL

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Automatic Transmission	
Mode Switch	Beneath vehicle, on left side of transmission 43
Brake Switch	Below I/P, on brake pedal support 74
Clutch Switch	Below I/P, top of clutch pedal support 57
Dash Fuse Box	Behind left dash side trim panel 55
ECM or PCM Main Relay	In fuse/relay box 38
Engine or Powertrain Control	
Module (ECM or PCM)	Right side of engine compartment 60
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Throttle Valve Assembly	Top front of engine 10
Connector	
B-52 (14-BLK)	Below I/P, right of steering column 58
H-5 (16-GRN)	Left side of engine compartment 33
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket 33
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-9 (20-BLK)	Below I/P, above left dash side trim panel, on bracket 70
H-11 (16-BLK)	Left front of engine compartment 27
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-41 (16-BLU)	Right front of engine compartment 31
H-53 (16-GRN)	Left front of engine compartment 27
H-55 (16-BLU)	Right side of engine compartment 59
H-57 (16-BLK)	Right side of engine compartment 59
I-9 (30-GRN)	On left top of meter assembly 53
M-25 (8-BLK)	On left side of transmission 52
Ground	
E-28	Top left rear of engine 32
E-30	Top right rear of engine 16

Circuit Operation

With the starter switch in ON, the engine (M/T) or powertrain (A/T) control module is powered. This system uses mechanical, and electrical operated devices to maintain vehicle speed at a setting selected and controlled by the driver. See owner's manual for further instruction.

System Operation

The cruise control system will set and automatically maintain any speed above 25 mph (40 km/h). To set, press the cruise control main switch so that the "CRUISE ON/OFF" indicator is on. After reaching the desired speed, press the set switch. The engine (M/T) or powertrain (A/T) control module will receive a set signal input and will activate the throttle valve motor.

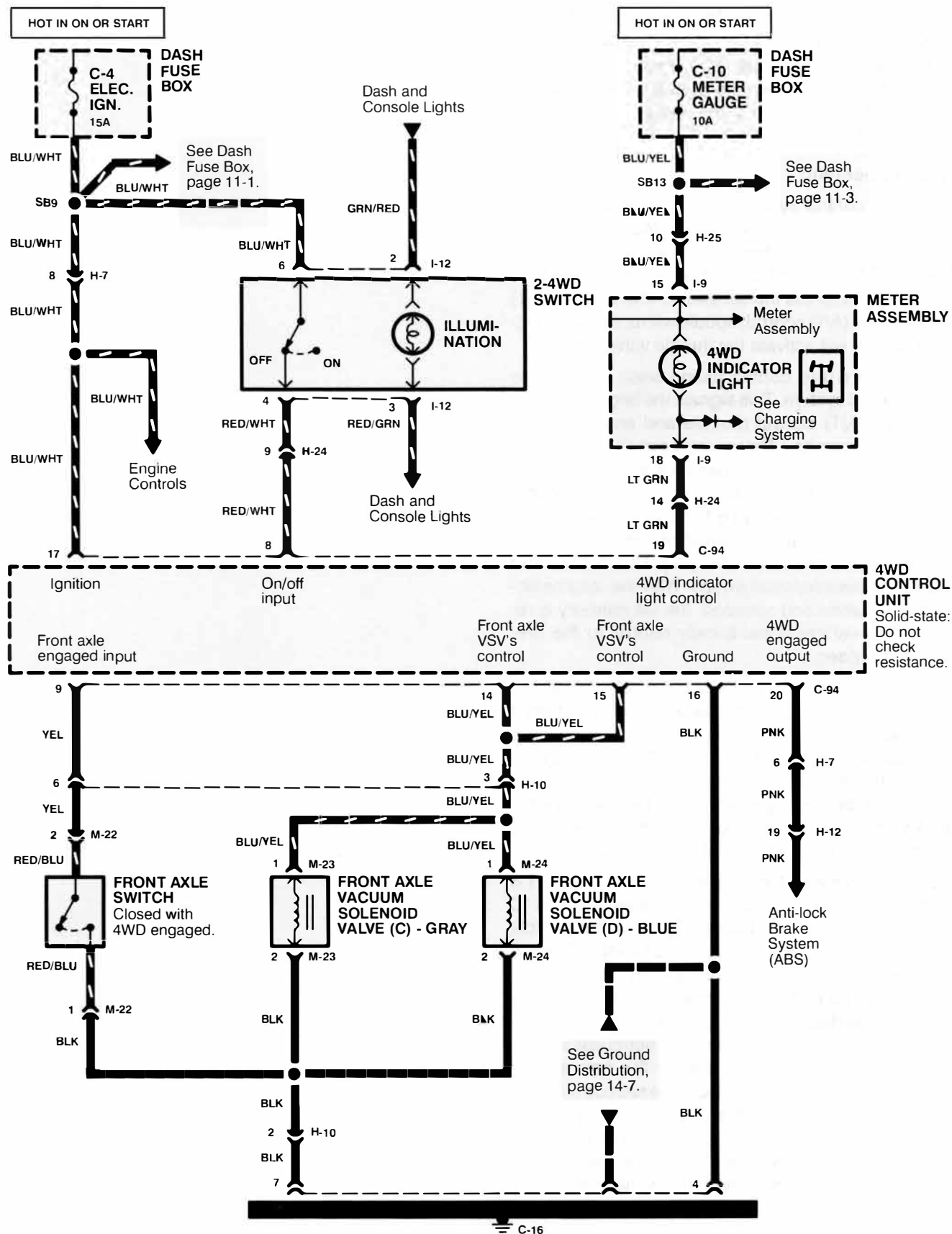
Pushing the cruise control main switch cancels the cruise control system. This signals the engine (M/T) or powertrain (A/T) control module and erases the set speed from memory. The cruise control system also disengages when cruising speed is lower than the preset speed by 12.5 mph (20 km/h) or more. If the system is disengaged temporarily by the brake switch, clutch switch, or the automatic transmission mode switch and vehicle speed is still above 25 mph (40 km/h), turn and release the resume/accel switch. With the resume/accel switch turned and released, the set memory is retained. The vehicle automatically returns to the previously set speed.

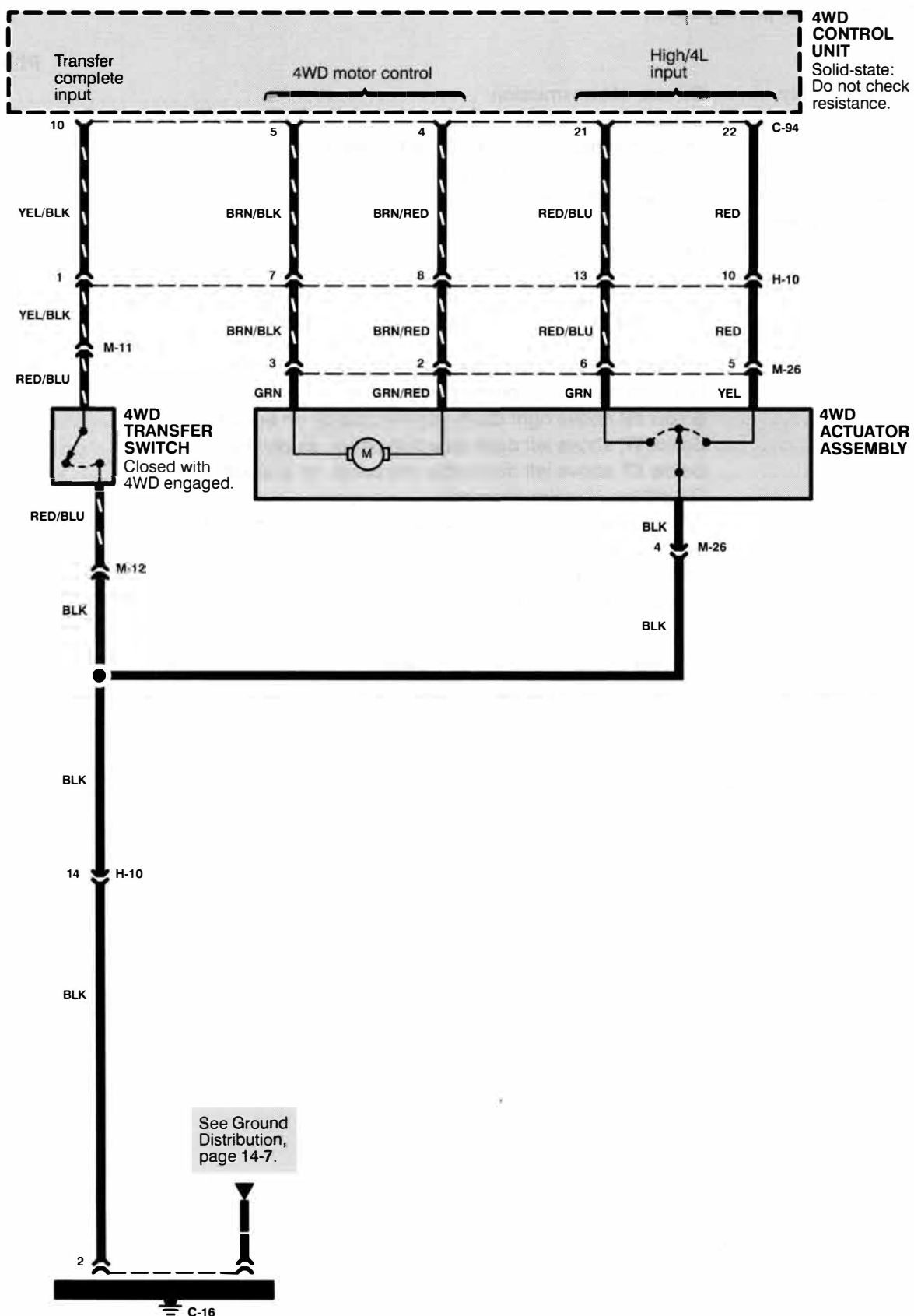
For gradual acceleration without depressing the accelerator pedal, turn the resume/accel switch and hold it there until the desired speed is reached. This will send an acceleration signal to the engine (M/T) or powertrain (A/T) control module. When the switch is released, the system will be reprogrammed for the new speed. Quickly turning and releasing the resume/accel switch allows you to tap up the preset cruising speed.

Each turn increases the preset speed by 1 mph (1.6 km/h). The preset speed can be increased by up to 10 mph (16 km/h) in this manner. To slow the vehicle down, depress and hold the set/coast switch. This will send a deceleration signal to the engine (M/T) or powertrain (A/T) control module, causing the vehicle to coast until the desired speed is reached. When the desired speed is reached, release the set/coast switch. This will reprogram the system for the new speed. Quickly depressing and releasing the set/coast switch allows you to tap down the preset cruising speed. Each depress decreases the preset speed by 1 mph (1.6 km/h). The preset speed can be decreased to a minimum of 25 mph (40 km/h) in this manner.

SHIFT-ON-THE-FLY

Circuit Schematic





SHIFT-ON-THE-FLY

Component Location Index

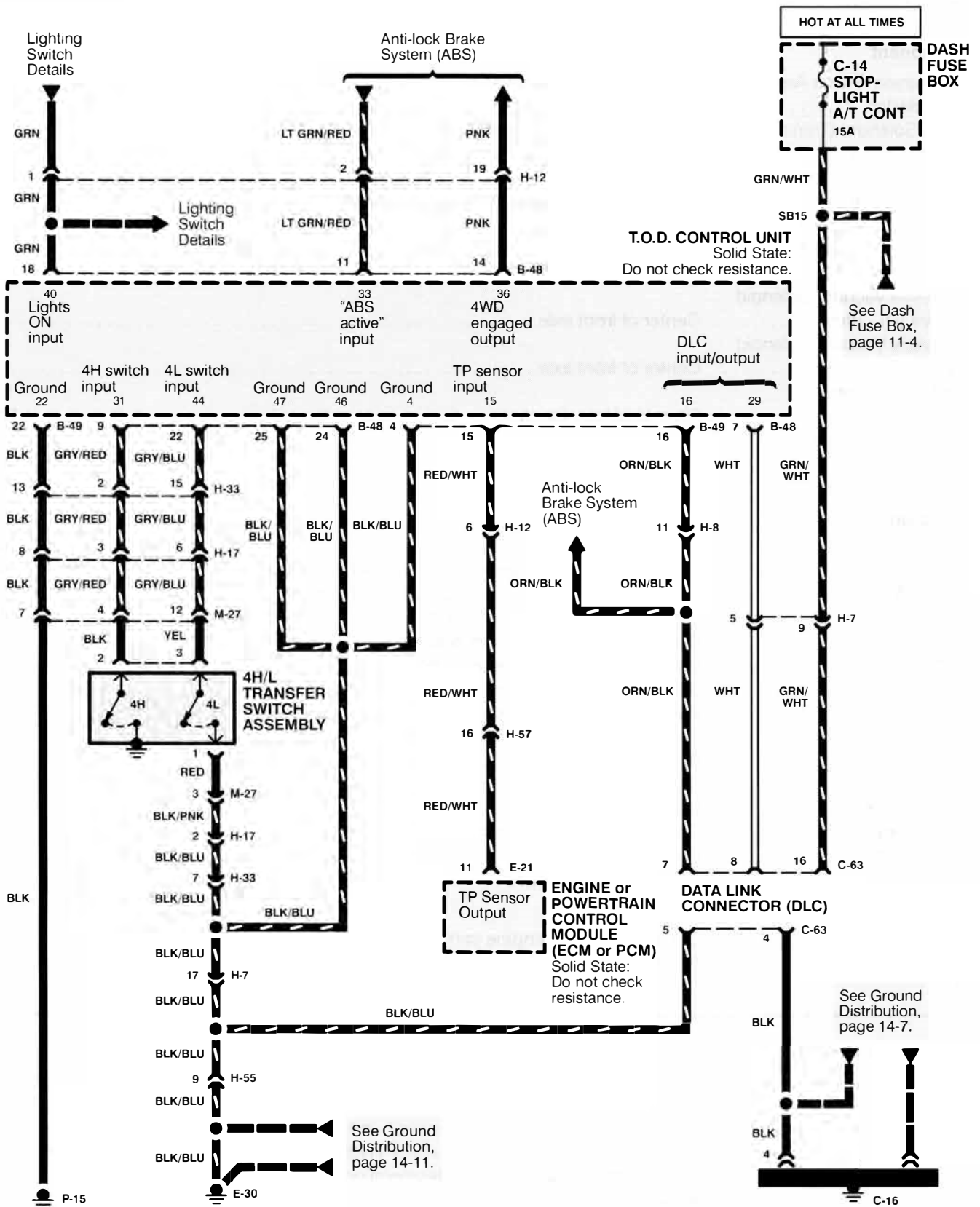
(Refer to Section 201 for photographs.)

Component	Photo No.
4WD Actuator Assembly	On rear of transmission 119
4WD Control Unit	Behind front console 62
4WD Transfer Switch	Beneath vehicle, on right side of transfer case 42
Dash Fuse Box	Behind left dash side trim panel 55
Front Axle Switch	Left center of front axle 17
Front Axle Vacuum Solenoid	
Valve (D) - Blue	Center of front axle 9
Front Axle Vacuum Solenoid	
Valve (C) - Gray	Center of front axle 9
Connector	
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket 69
H-10 (16-BLU)	Left front of engine compartment 27
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-24 (18-YEL)	Below I/P, above left dash side trim panel, on bracket 70
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
I-9 (30-GRN)	On left top of meter assembly 53
M-11 (1-WHT)	Beneath center of vehicle, top right side of transmission 42
M-12 (1-WHT)	Beneath center of vehicle, top right side of transmission 42
M-22 (2-BRN)	Center of front axle 17
M-26 (6-GRY)	On rear of transmission 119
Ground	
C-16	Left rear corner of engine compartment, on inner fender panel 39

THIS PAGE INTENTIONALLY LEFT BLANK

Circuit Schematic





TORQUE ON DEMAND (T.O.D.) SYSTEM

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
4H/L Transfer Switch Assembly	On bottom of transfer case 127
Brake Switch	Below I/P, on brake pedal support 74
Clutch Solenoid (Transfer)	In transfer case (see page 4B2-5 of Service Manual)
Dash Fuse Box	Behind left dash side trim panel 55
Data Link Connector (DLC)	
C63 (16-BLK)	Left I/P lower cover, behind access cover 47
Engine or Powertrain Control	
Module (ECM or PCM)	Right side of engine compartment 60
Front Axle Switch	Left center of front axle 17
Front Axle Vacuum Solenoid	
Valve (D) - Blue	Center of front axle 9
Front Axle Vacuum Solenoid	
Valve (C) - Gray	Center of front axle 9
Front Speed Sensor	
(Transfer)	On rear of transfer case 129
Rear Speed Sensor	
(Transfer)	On rear of transfer case 129
T.O.D. Control Unit	Below right front seat 125
Connector	
C-94 (22-GRN)	Behind front console 62
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket 69
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-10 (16-BLU)	Left front of engine compartment 27
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-17 (9-WHT)	Underside of vehicle, beneath right front seat 50
H-24 (18-YEL)	Below I/P, above left dash side trim panel, on bracket 70
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-33 (20-WHT)	In floor, below right front seat 110
H-36 (3-GRY/BLK)	Below right front seat 110
H-55 (16-BLU)	Right side of engine compartment 59
H-57 (16-BLK)	Right side of engine compartment 59
I-9 (30-GRN)	On left top of meter assembly 53
M-22 (2-BRN)	Center of front axle 17
M-27 (12-BLK)	On top of transfer case 128
Ground	
C-16	Left rear corner of engine compartment, on inner fender panel 39
E-30	Top right rear of engine 16
P-15	On top of transfer case, on shift lever bracket 19

Circuit Operation

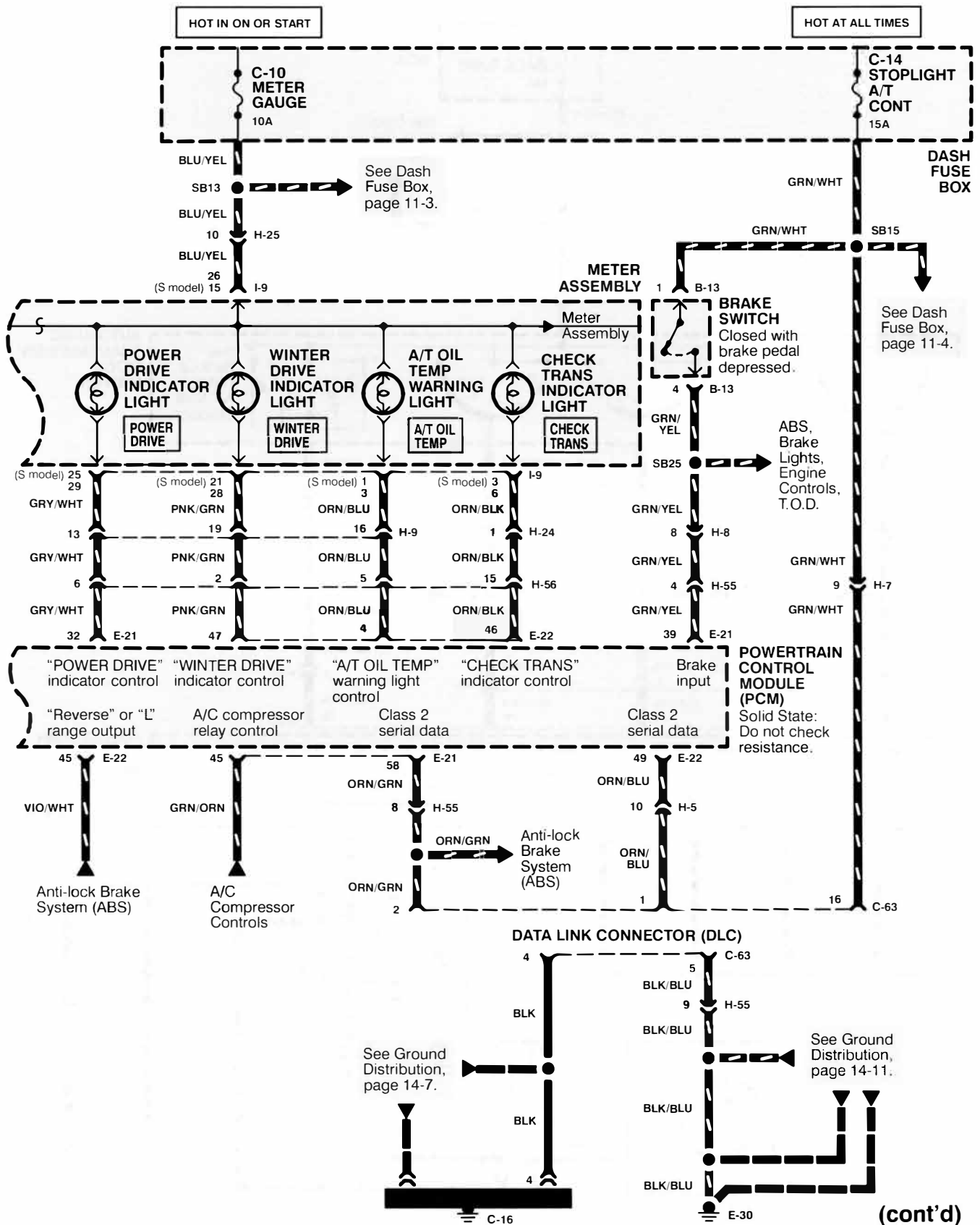
Voltage is applied with the starter switch in ON or START, through the ELEC. IGN. fuse CB-4. The T.O.D. control unit receives input from the front speed sensor (transfer) and the rear speed sensor (transfer) and determines if there is any variation. In the event of a variation in speeds, voltage is applied to the clutch solenoid (transfer) to apply torque to the front wheels. While voltage is being applied to the clutch solenoid (transfer),

the T.O.D. control unit is providing ground to the corresponding indicators in the meter assembly. The T.O.D. control unit receives input from the throttle position sensor (TPS) in order to determine acceleration and deceleration conditions. The T.O.D. control unit receives an input from the ABS system, when active, to apply voltage to the clutch solenoid (transfer).

THIS PAGE INTENTIONALLY LEFT BLANK

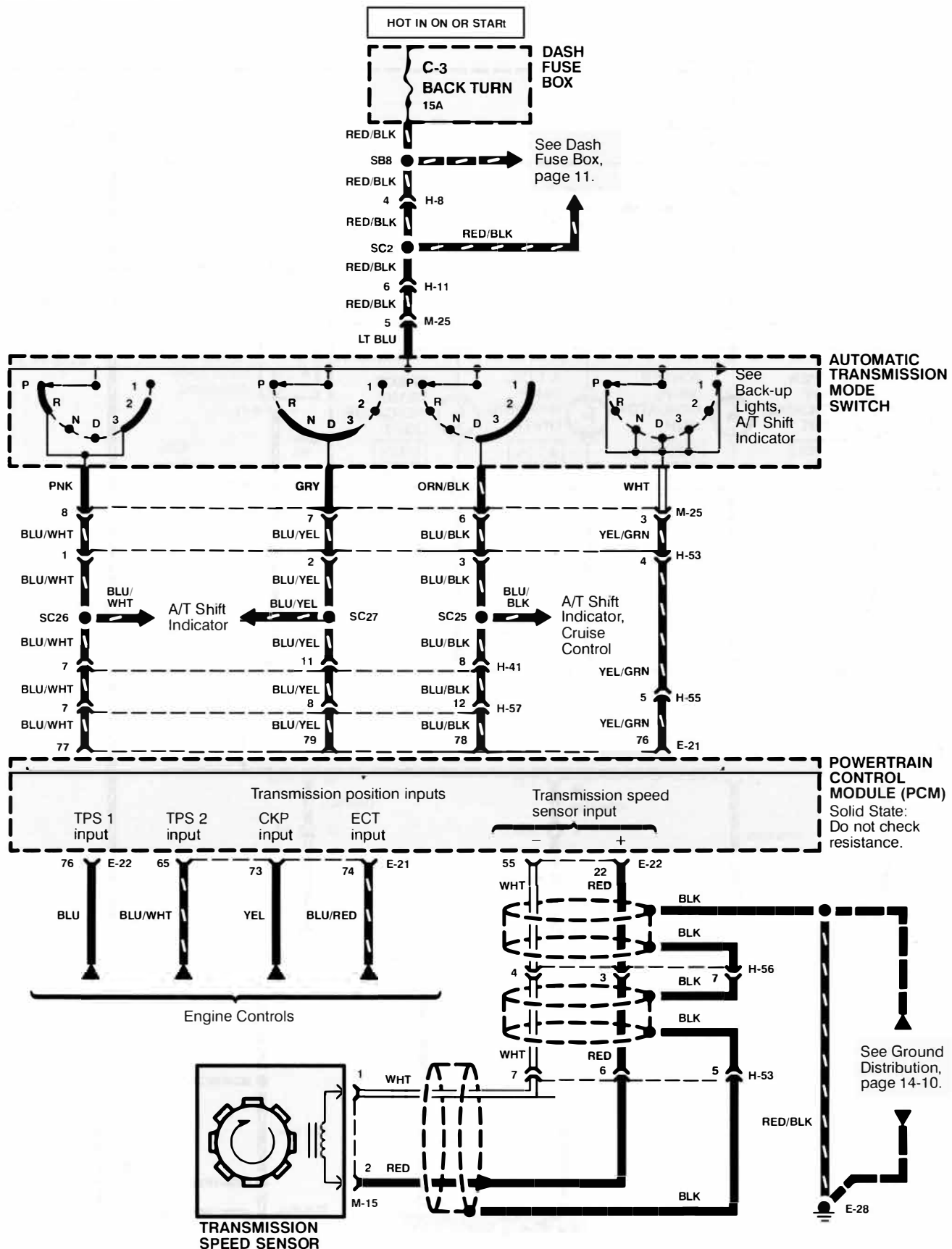
Circuit Schematic

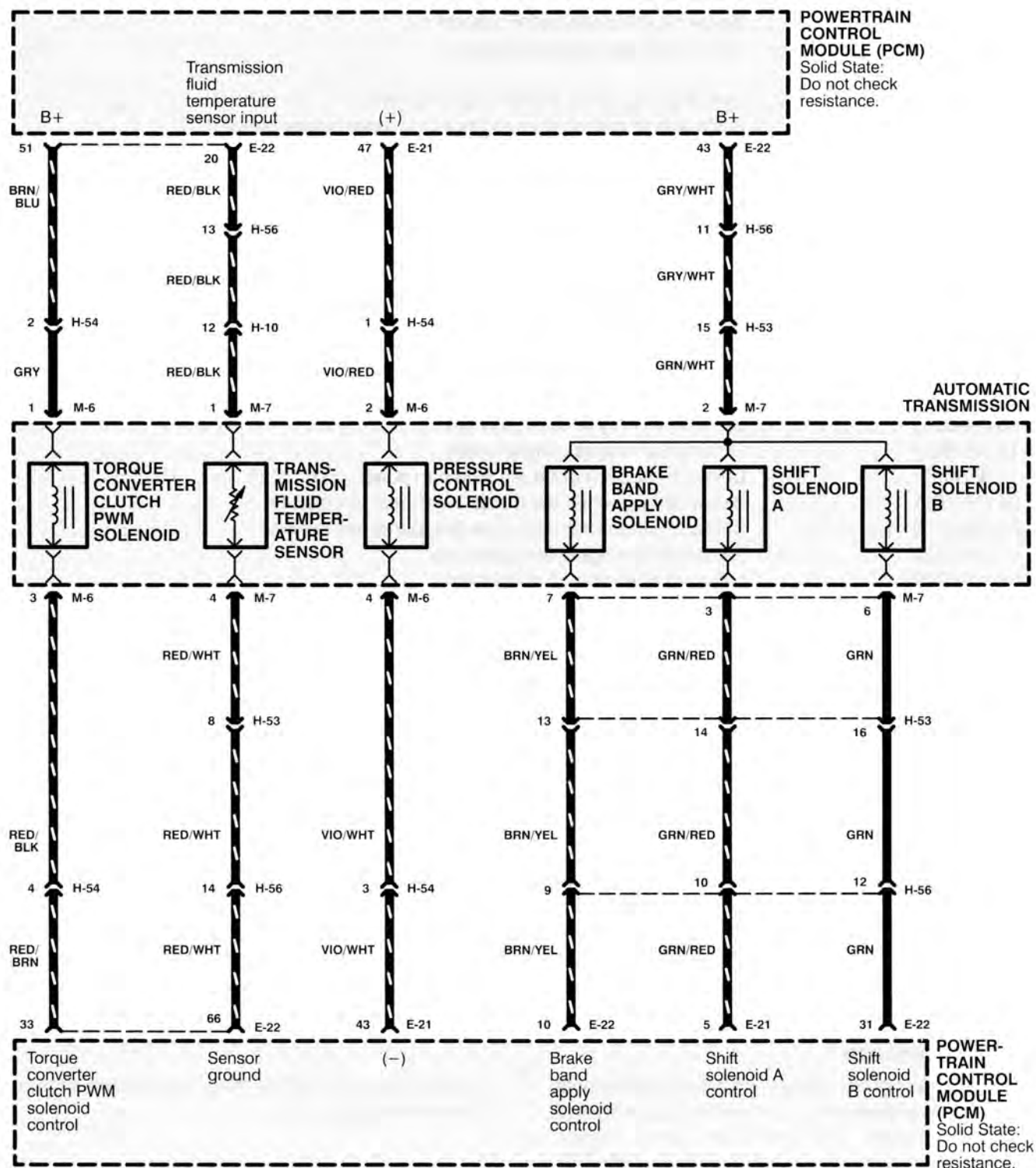




AUTOMATIC TRANSMISSION CONTROLS

Circuit Schematic





AUTOMATIC TRANSMISSION CONTROLS

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Automatic Transmission	
Mode Switch	Beneath vehicle, on left side of transmission 43
Brake Switch	Below I/P, on brake pedal support 74
Dash Fuse Box	Behind left dash side trim panel 55
Data Link Connector (DLC)	
C63 (16-BLK)	Left I/P lower cover, behind access cover 47
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
PCM Main Relay	In fuse/relay box 38
Powertrain Control Module	
(PCM)	Right side of engine compartment 60
Transmission Speed Sensor ..	Beneath vehicle, on top of transmission 51
Connector	
H-4 (16-BLK)	Left side of engine compartment 33
H-5 (16-GRN)	Left side of engine compartment 33
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket 69
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-9 (20-BLK)	Below I/P, above left dash side trim panel, on bracket 70
H-10 (16-BLU)	Left front of engine compartment 27
H-11 (16-BLK)	Left front of engine compartment 27
H-13 (6-BLK)	Below I/P, above right dash side trim panel, on bracket 100
H-24 (18-YEL)	Below I/P, above left dash side trim panel, on bracket 70
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-41 (16-BLK)	Right front of engine compartment 31
H-53 (16-GRN)	Left front of engine compartment 27
H-54 (4-GRY)	Lower left rear of engine 59
H-55 (16-BLU)	Right side of engine compartment 59
H-56 (16-GRN)	Right side of engine compartment 59
H-57 (16-BLK)	Right side of engine compartment 59
I-9 (30-GRN)	On left top of meter assembly 53
I-10 (22-GRN)	On right top of meter assembly 53
M-6 (5-BLK)	Beneath center of vehicle, left side of transmission 43
M-7 (4-BLK)	Beneath center of vehicle, left side of transmission 43
M-25 (8-BLK)	On left side of transmission 52
Ground	
B-26	Below rear of center console 67
C-16	Left rear corner of engine compartment, on inner fender panel 39
C-39	Right rear corner of engine compartment, on inner fender panel 45
E-28	Top left rear of engine 32
E-30	Top right rear of engine 16

Circuit Operation

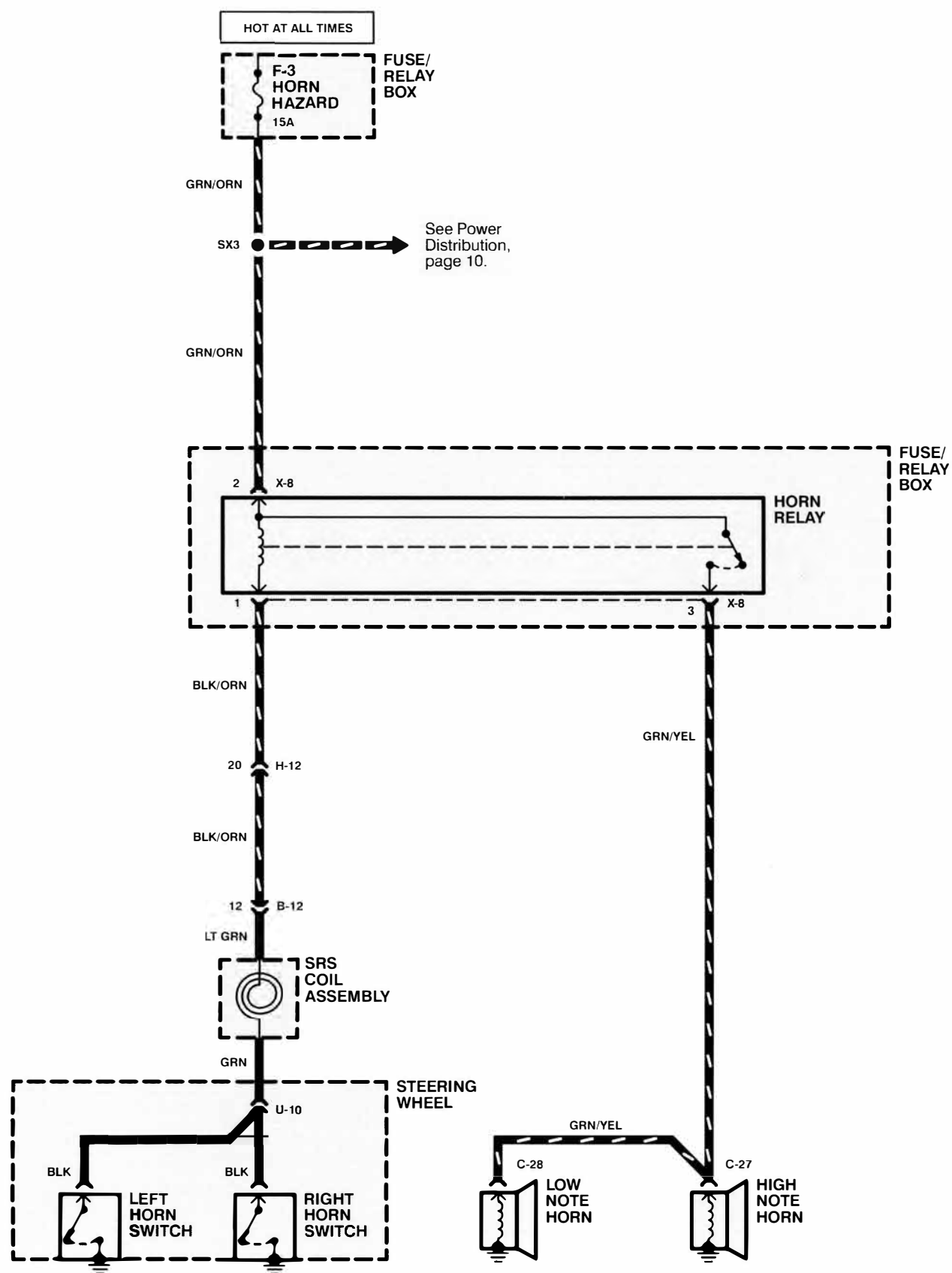
The powertrain control module (PCM) receives inputs from switches and sensors, and controls the functions of transmission mode. The powertrain control module (PCM) also controls the "POWER DRIVE", "WINTER DRIVE", AND "CHECK TRANS" indicator lights and allows for diagnostic testing through the tech-1 connector.

Refer to Section 7 of the Workshop Manual for further transmission diagnosis.

THIS PAGE INTENTIONALLY LEFT BLANK

HORNS

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
High Note Horn	Behind right headlight 1
Horn Relay	In fuse/relay box 37
Low Note Horn	Behind right side of radiator grille 1
SRS Coil Assembly	Top of steering column 46

Connector

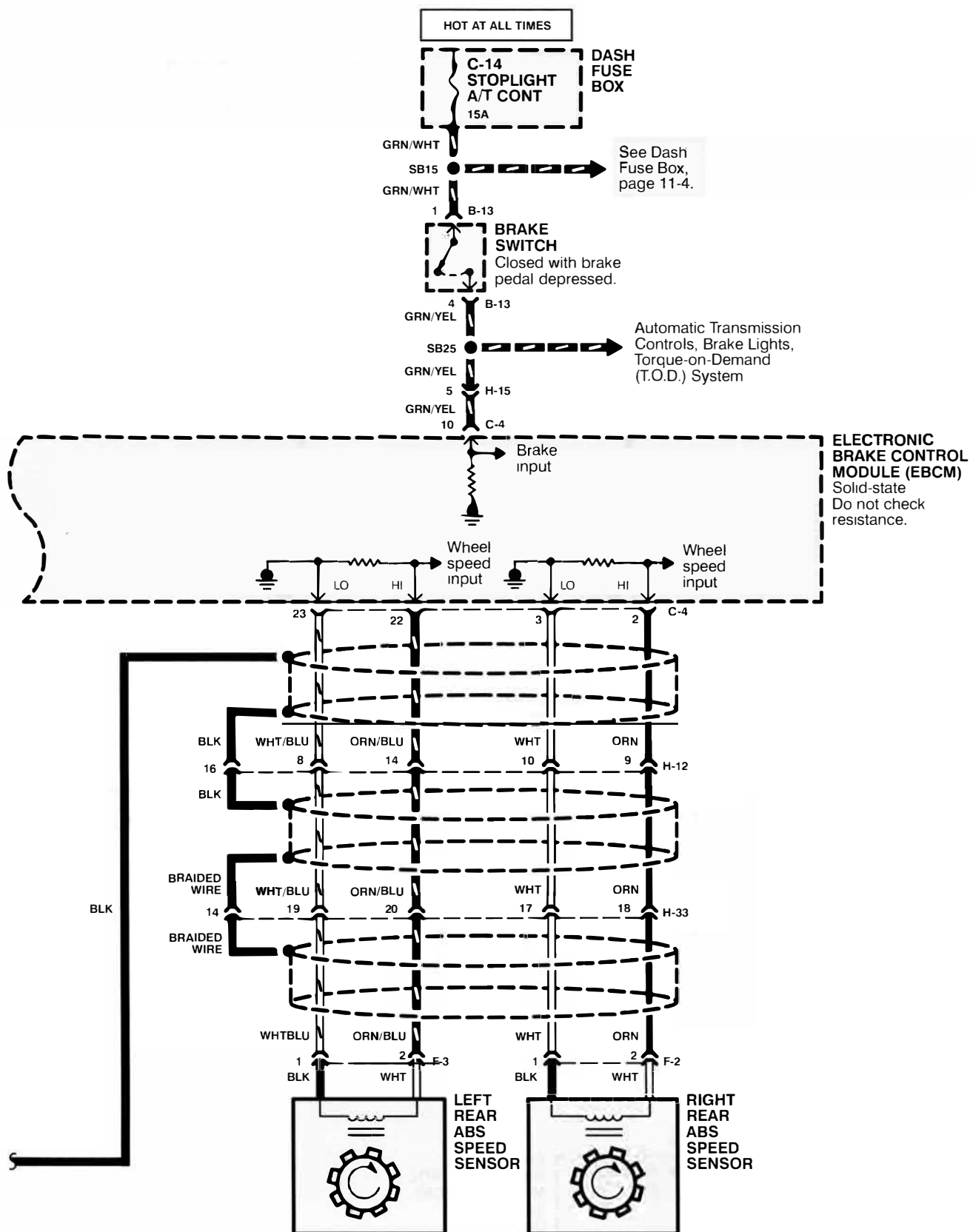
B-12 (16-WHT)	Below I/P, right of steering column 58
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
U-10 (1-WHT)	Inside steering wheel

Circuit Operation

Voltage is applied at all times through fuse F-3 to the horn relay. The circuit continues from the horn relay to the SRS coil assembly and the horn switches. When a horn switch is closed, the circuit path is completed to ground and the horn relay energizes. The relay contact closes and battery voltage is applied to the horns. The horns sound.

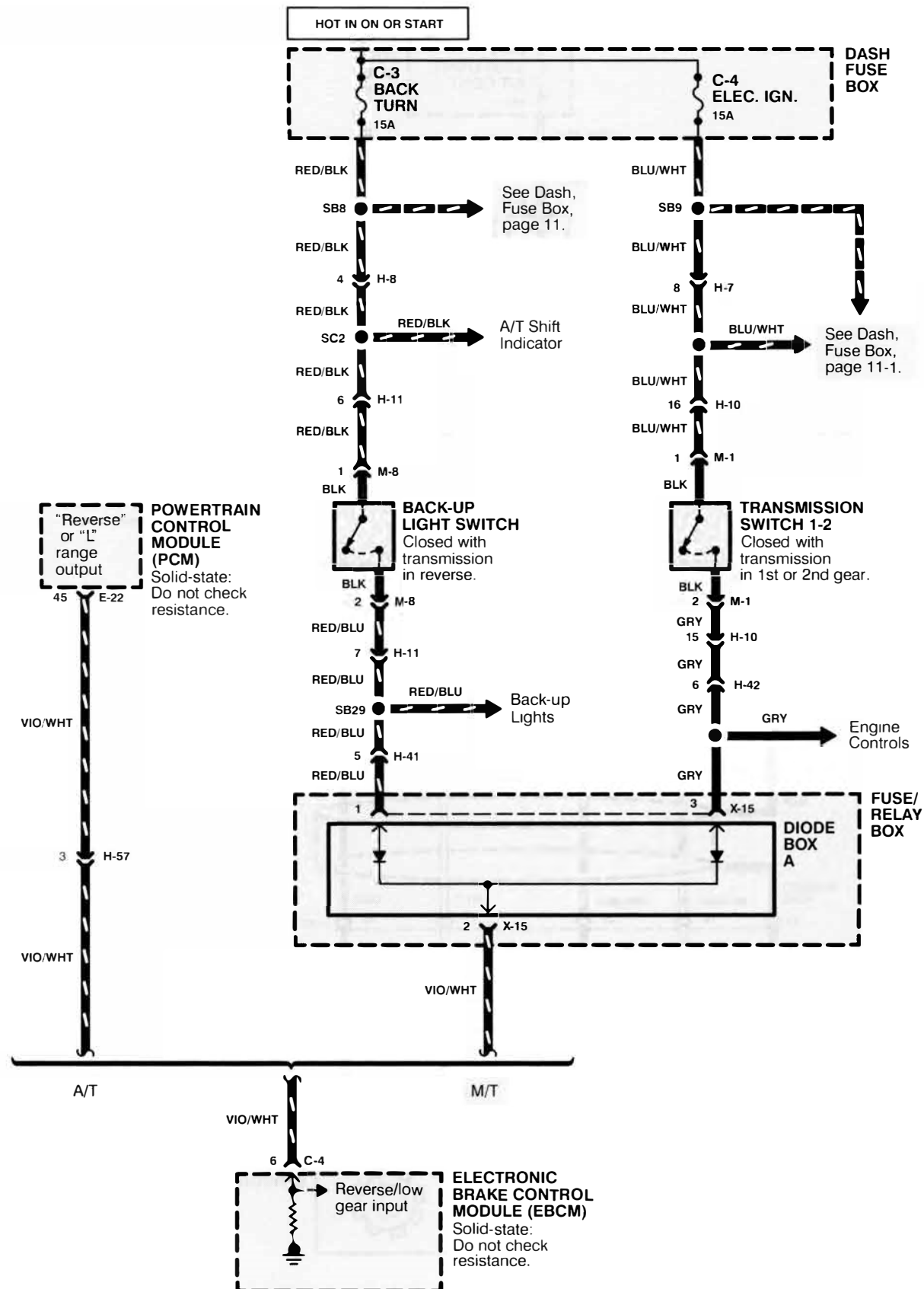
Circuit Schematic

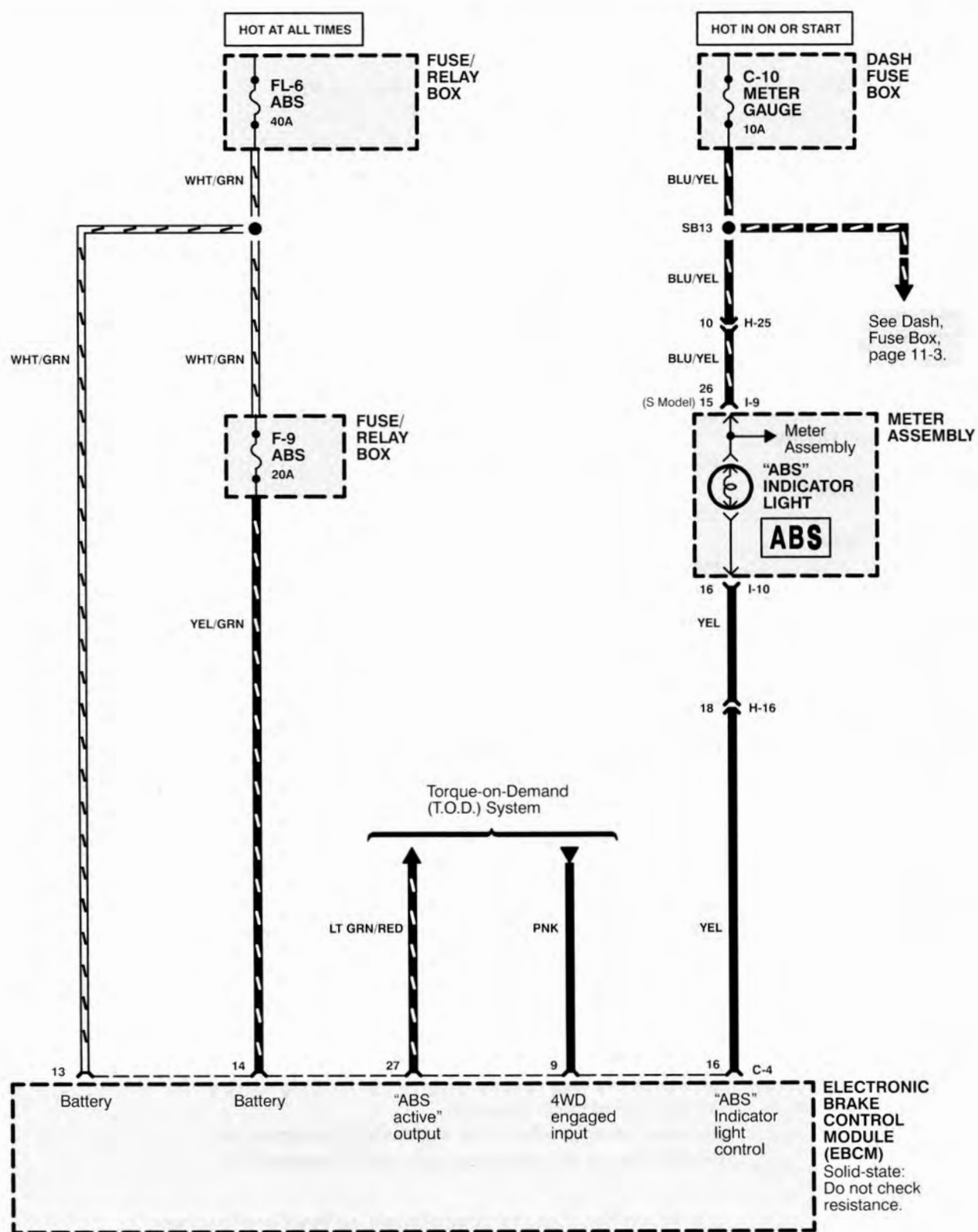




ANTI-LOCK BRAKE SYSTEM (ABS)

Circuit Schematic





ANTI-LOCK BRAKE SYSTEM (ABS)

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Back-up Light Switch	Beneath vehicle, on right side of transmission 118
Brake Switch	Below I/P, on brake pedal support 74
Dash Fuse Box	Behind left dash side trim panel 55
Data Link Connector (DLC)	
C63 (16-BLK)	Left I/P lower cover, behind access cover 47
Diode Box A	In fuse/relay box 37
Electronic Brake Control	
Module (EBCM)	Right front of engine compartment 41
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
G Sensor - ABS	Beneath rear of center console 126
Left Front ABS Speed	
Sensor	Inside of left front wheel 8
Left Rear ABS Speed	
Sensor	Inside of left rear wheel 101
Powertrain Control Module	
(PCM)	Right side of engine compartment 60
Right Front ABS Speed	
Sensor	Inside of right front wheel 8
Right Rear ABS Speed	
Sensor	Inside of right rear wheel 101
Transmission Switch 1-2	Beneath vehicle, on right side of transmission 15
Connector	
C-13 (2-BRN)	Lower left side of engine compartment 7
C-41 (2-BRN)	Lower right side of engine compartment 7
F-2 (2-BRN)	Beneath rear of vehicle, above right side of differential 98
F-3 (2-BLK)	Beneath rear of vehicle, above right side of differential 98
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket 69
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-10 (16-BLU)	Left front of engine compartment 27
H-11 (16-BLK)	Left front of engine compartment 27
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-15 (14-WHT)	Below I/P, above right dash side trim panel, on bracket 115
H-16 (22-WHT)	Behind right dash side trim panel 120
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-33 (20-WHT)	In floor, below right front seat 110
H-41 (16-BLK)	Right front of engine compartment 31
H-42 (16-BLU)	Right front of engine compartment 31
H-55 (16-BLK)	Right side of engine compartment 59
H-57 (16-BLU)	Right side of engine compartment 59
I-9 (30-GRN)	On left top of meter assembly 53
I-10 (22-GRN)	On right top of meter assembly 53
M-1 (2-GRY)	Beneath center of vehicle, top right side of transmission 15
M-8 (2-BLU/GRY)	Beneath center of vehicle, top right side of transmission 118
Ground	
C-16	Left rear corner of engine compartment, on inner fender panel 39
C-39	Right rear corner of engine compartment, on inner fender panel 45
C-85	Lower right front of engine compartment 122
E-30	Top right rear of engine 16

Circuit Operation

The anti-lock brake system adjusts the brake pressure whenever a wheel is about to lockup, allowing the driver to maintain greater control of the vehicle under heavy braking conditions. Under normal driving conditions, the anti-lock brake system (ABS) functions the same as a standard power assisted brake system.

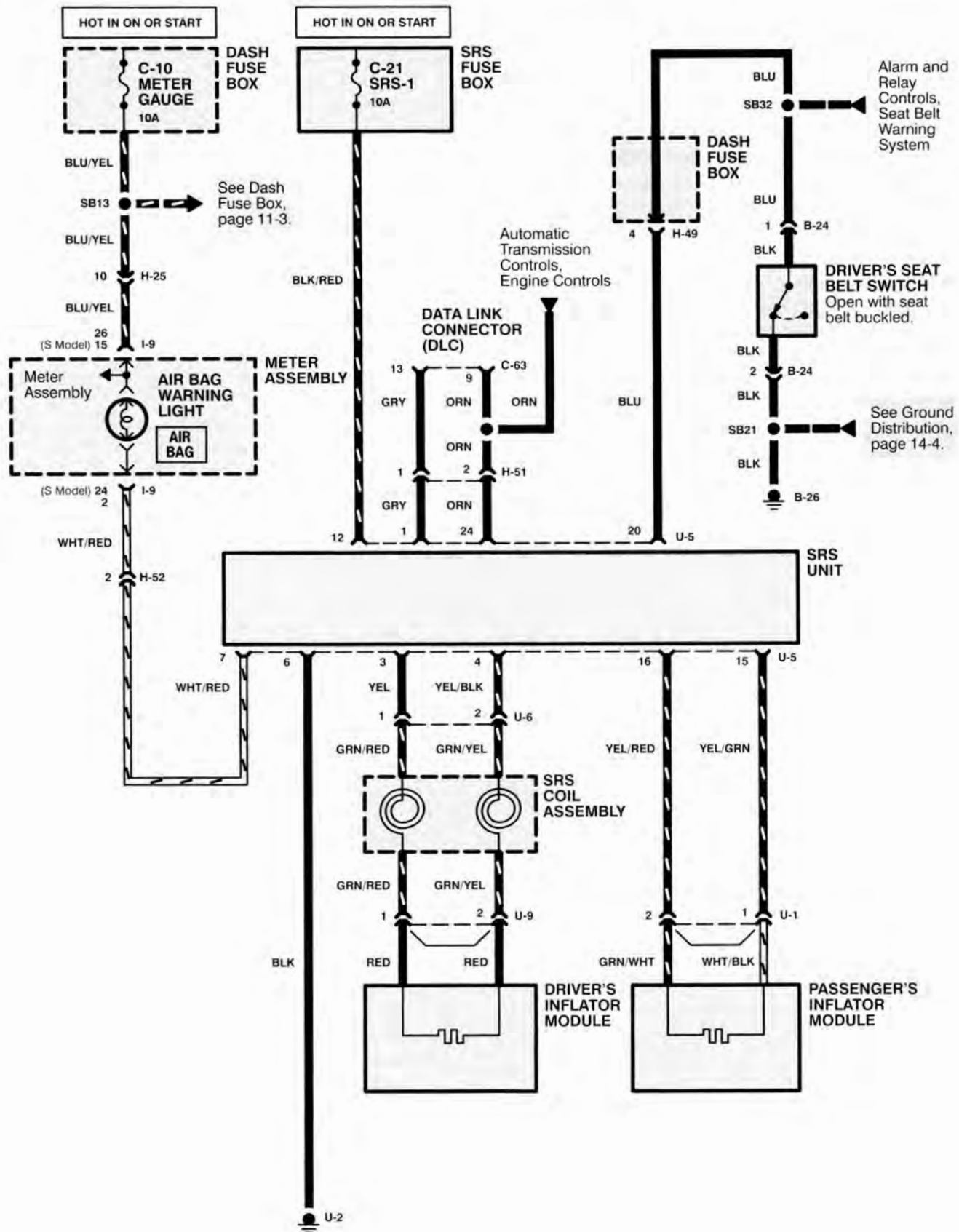
The electronic brake control module (EBCM) receives inputs from individual ABS speed sensors and the G-sensor. The electronic brake control module (EBCM) uses the inputs to control the hydraulic pressure applied to each caliper.

The electronic brake control module (EBCM) has a self-diagnosis function which monitors the system's function. When a malfunction is detected, the "ABS" indicator light is turned on and the anti-lock braking function is disabled; but the standard power assisted brake system continues to operate normally.

Refer to Section 5 of the Workshop Manual for further anti-lock brake system (ABS) diagnosis.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Dash Fuse Box	Behind left dash side trim panel 55
Data Link Connector (DLC)	
C63 (16-BLK)	Left I/P lower cover, behind access cover 47
Driver's Inflator Module	In steering wheel
Driver's Seat Belt Switch	In left front seat belt buckle
Passenger's Inflator Module ..	Behind right side of I/P 99
SRS Coil Assembly	Top of steering column 46
SRS Fuse Box	On top of dash fuse box 68
SRS Unit	Behind front console 61
Connector	
B-24 (3-BLK)	Below driver's seat 104
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-49 (4-WHT)	On top of dash fuse box 68
H-51 (2-WHT)	Below I/P, above left dash side trim panel, on bracket 69
H-52 (2-YEL)	Below I/P, above left dash side trim panel, on bracket 69
I-9 (30-GRN)	On left top of meter assembly 53
U-1 (2-YEL)	Above glove box 99
U-6 (2-YEL)	Below I/P, right of steering column 58
U-9 (2-YEL)	Inside steering wheel
Ground	
B-26	Below rear of center console 67
U-2	Behind front console 61

Circuit Operation

The SRS consists of the SRS unit, the driver air bag assembly, the SRS coil assembly, the passenger air bag assembly and the "AIR BAG" warning light in the meter assembly. The SRS unit, SRS coil assembly (driver side only), driver air bag assembly, passenger air bag assembly and connector wire make up the deployment loops. The function of the deployment loops is to supply current through air bag assembly, which will cause deployment of the air bags in the event of a frontal crash of sufficient force, up to 30 degrees off the centerline of the vehicle. The air bag assemblies are only supplied enough current to deploy when the SRS unit detects vehicle velocity changes severe enough to warrant deployment.

The SRS unit contains a sensing device which converts vehicle velocity change to an electrical signal. The electrical signal generated is processed by the SRS unit and then compared to a value stored in memory. When the generated signal exceeds the stored value, the SRS unit will cause current to flow through the air bag assembly deploying the air bags.

Refer to Section 9J of the Workshop Manual for further supplemental restraint system diagnosis.

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Alarm and Relay Control	
Unit	Behind right kick panel 116
Dash Fuse Box	Behind left dash side trim panel 55
Rear Defogger Relay	In dash fuse box 56
Connector	
G-3 (1-BLK)	On left side of glass, in left tailgate door 93
G-7 (1-BLK)	On right side of glass, in left tailgate door 93
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-31 (2-WHT)	Below left front seat 105
H-37 (4-GRY)	Left rear of luggage room 89
H-48 (16-BLK)	Behind right dash side trim panel 120
Ground	
R-3	Left side of luggage room 90

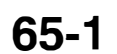
Circuit Operation

Voltage is applied at all times through fuse C-17 to the rear defogger relay contact. With the starter switch in ON or START, voltage is applied through fuse C-4 to the rear defogger switch and the rear defogger relay coil.

When the rear defogger switch is pushed, a voltage is detected at connector B6 pin 8 of the alarm and relay control unit, and provides ground at connector B7 pin 5 for the rear defogger relay coil and the rear defogger "ON" indicator light. The rear defogger relay energizes and the relay contact closes. Battery voltage is then applied to the rear defogger. The indicator remains illuminated and the rear defogger heats the rear window to remove any fog from the glass. The rear defogger will turn off automatically after approximately 30 minutes. It will also turn off if the starter switch is turned to OFF or if the rear defogger switch is depressed again.

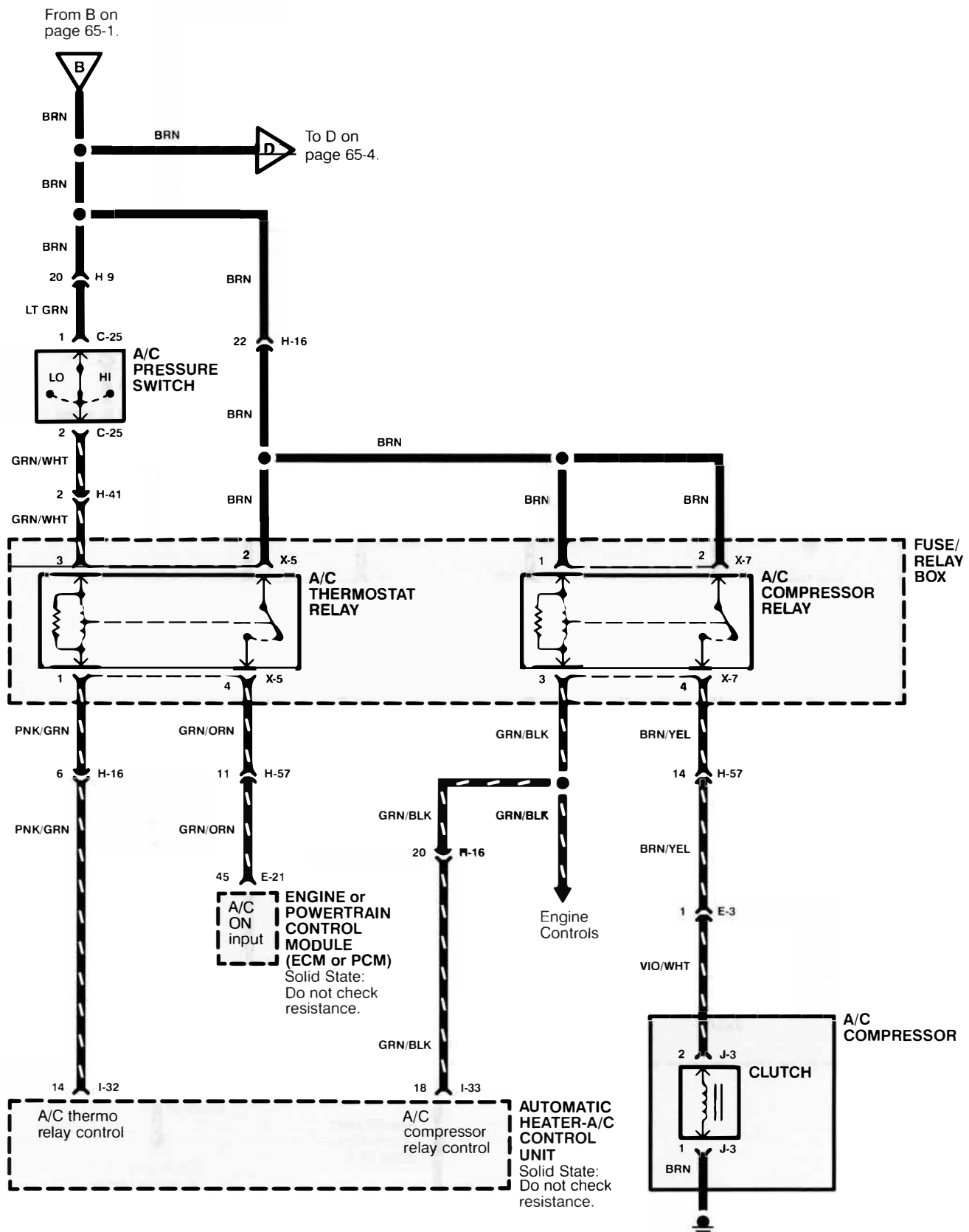
Circuit Schematic



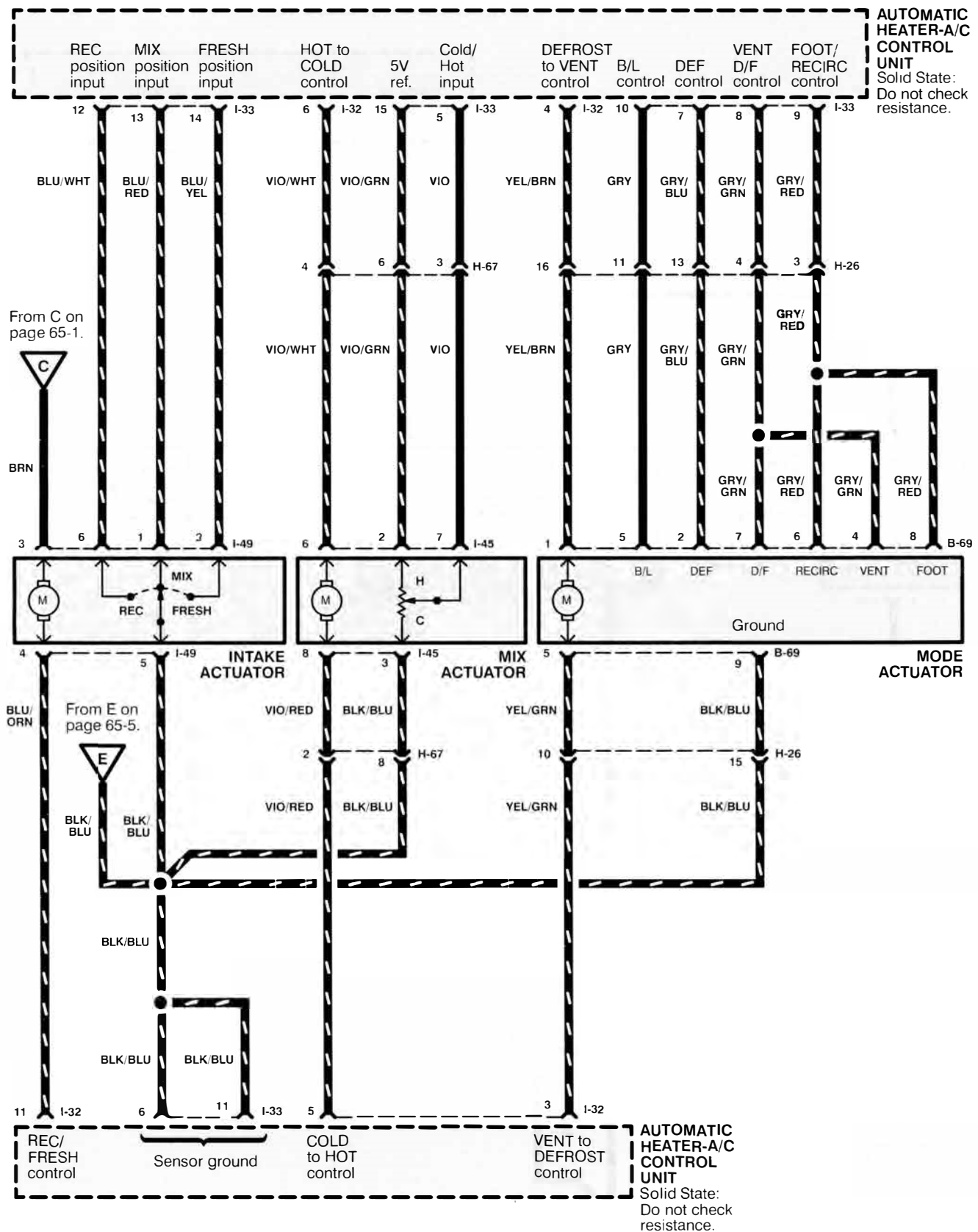


AUTOMATIC A/C CONTROLS (COMPRESSOR CONTROLS)

Circuit Schematic

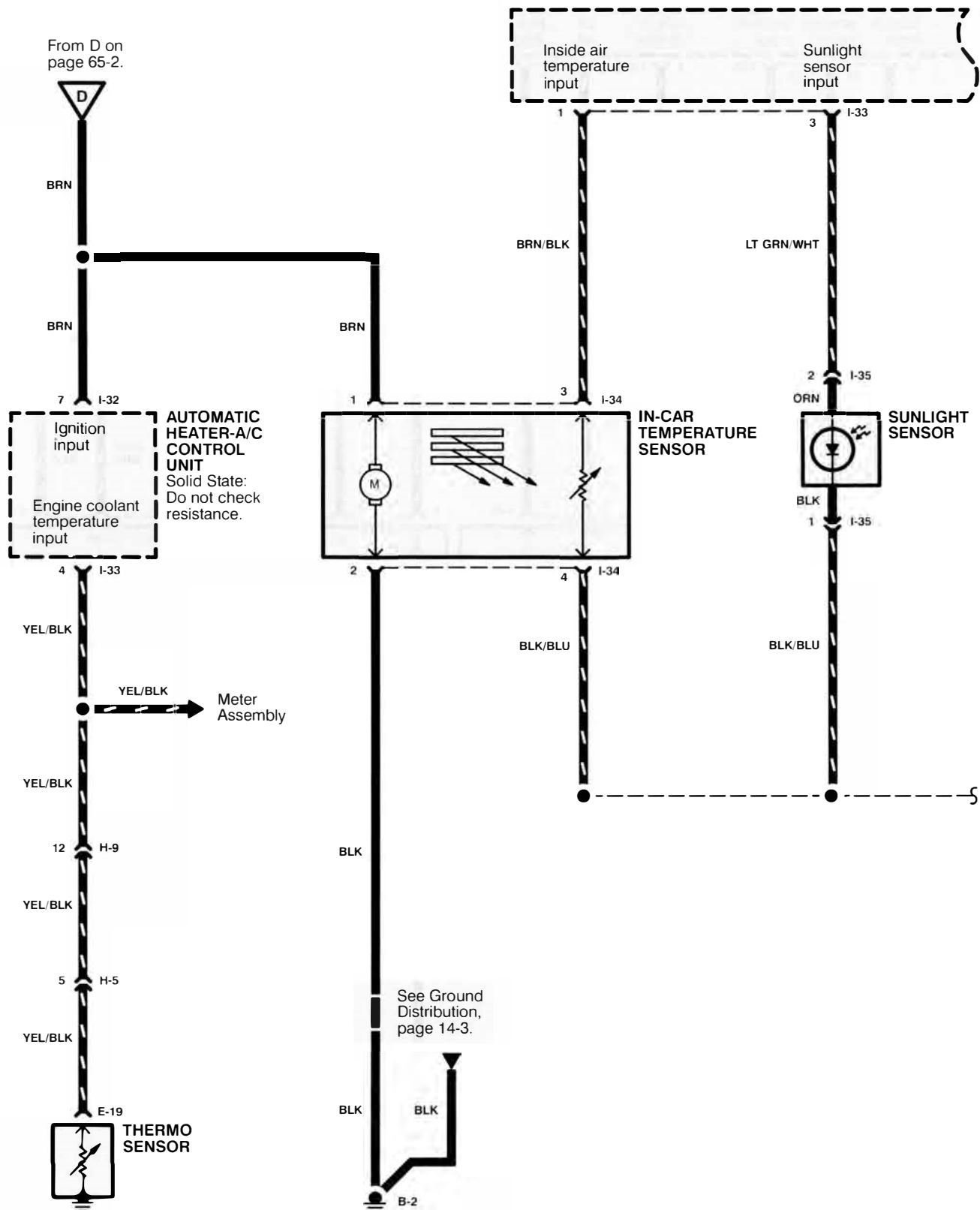


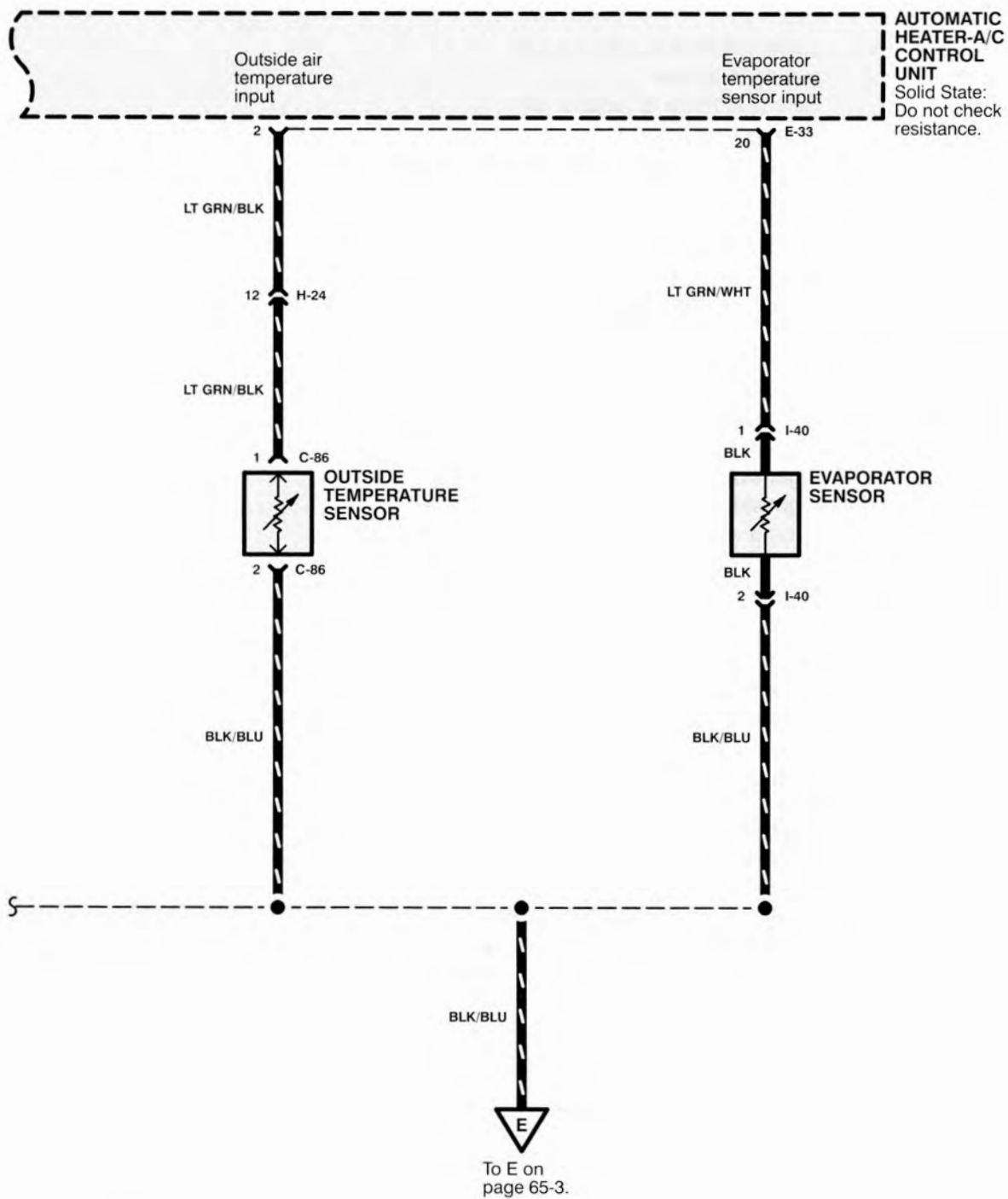
AUTOMATIC A/C CONTROLS (AIR DELIVERY CONTROLS)



AUTOMATIC A/C CONTROLS (SENSORS)

Circuit Schematic





AUTOMATIC A/C CONTROLS

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
A/C Compressor Clutch	Lower left front corner of engine 44
A/C Compressor Relay	In fuse/relay box 36
A/C Pressure Switch	Behind left side of radiator grille 2
A/C Thermostat Relay	In fuse/relay box 36
Ambient Sensor	Behind left side of radiator grille 2
Automatic Heater-A/C	
Control Unit	Center of I/P 64
Blower Motor	Right side of I/P, behind glove box 116
Dash Fuse Box	Behind left dash side trim panel 55
Duct Sensor	Right side of I/P, behind glove box 72
Engine Coolant Temperature	
(ECT) Sensor	Top front of engine 10
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Heater and A/C Relay	In fuse/relay box 56
In-car Temperature Sensor	Center of I/P 64
Intake Actuator	Right side of I/P, behind glove box 133
Max Hi Relay	Right side of I/P, behind glove box 72
Mix Actuator	Behind anti-theft and keyless entry control unit 136
Mode Actuator	Below I/P, above left dash side trim panel 123
Power Transistor	Right side of I/P, behind glove box 72
Connector	
E-3 (1-BLK)	Lower left front corner of engine 44
H-5 (16-GRN)	Left side of engine compartment 33
H-9 (20-BLK)	Below I/P, above left dash side trim panel, on bracket 70
H-14 (2-RED)	
H-16 (22-WHT)	Behind right dash side trim panel 120
H-20 (4-WHT)	Behind right dash side trim panel 120
H-24 (18-YEL)	Below I/P, above left dash side trim panel, on bracket 70
H-26 (20-WHT)	Below I/P, above left dash side trim panel, on bracket 71
H-41 (16-BLK)	Right front of engine compartment 31
H-48 (16-BLK)	Behind right dash side trim panel 120
H-57 (16-BLK)	Right side of engine compartment 59
H-67 (8-BLK)	Below I/P, above left dash side trim panel 137
Ground	
B-2	Above right dash side trim panel 116
B-19	Behind top of left dash side trim panel 71

Circuit Operation

The automatic A/C system consists of the following components:

Blower Controls:

- Blower Motor
- Max Hi Relay
- Power Transistor

Compressor Controls:

- A/C Compressor Clutch
- A/C Compressor Relay
- A/C Pressure Switch
- A/C Thermostat Relay

Air Delivery Controls:

- Intake Actuator
- Mix Actuator
- Mode Actuator

Sensor Inputs:

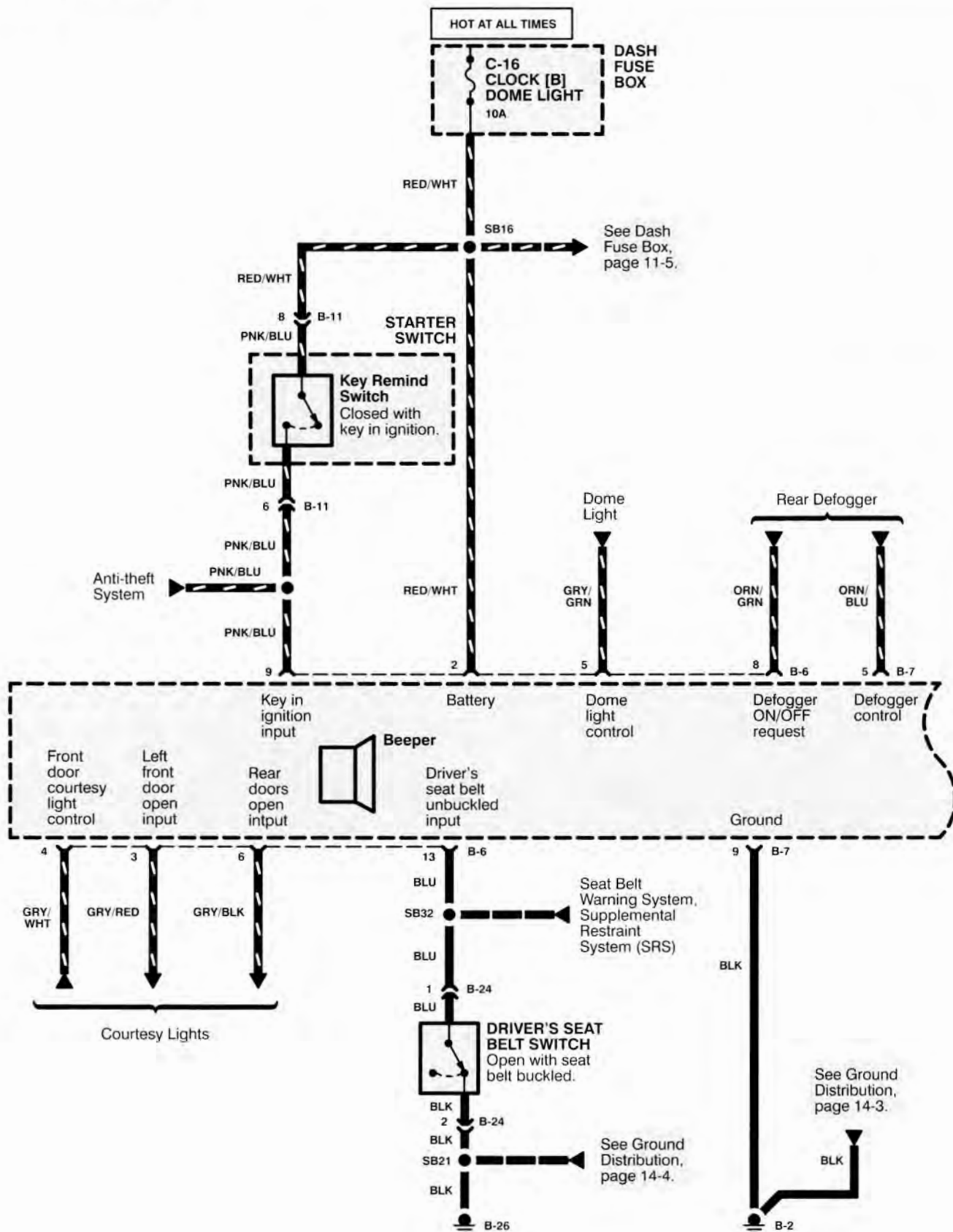
- Evaporator Sensor
- In-Car Temperature sensor
- Outside Temperature Sensor
- Sunlight Sensor
- Thermo Sensor

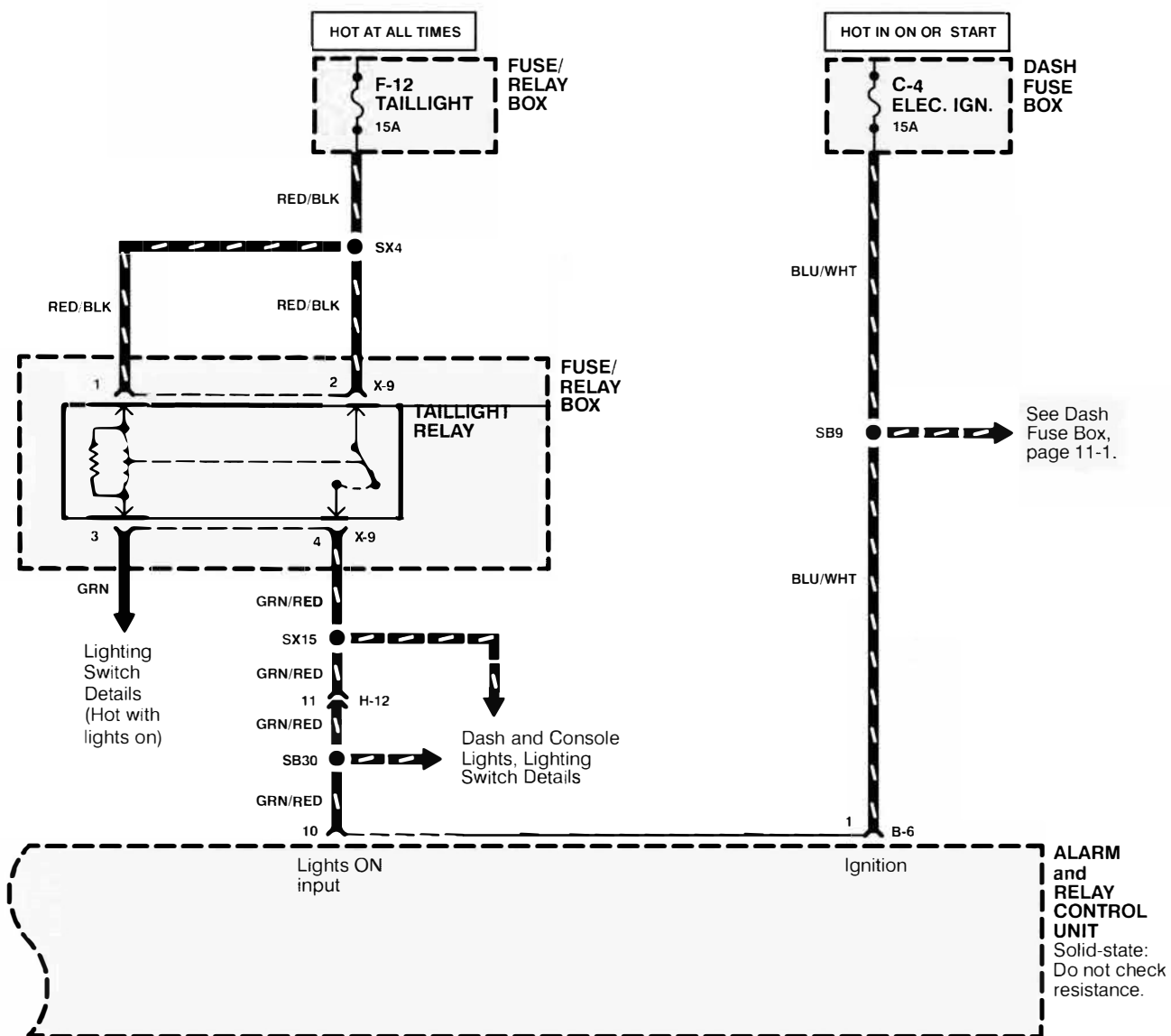
The Automatic Heater-A/C Control Unit is powered at all times through fuse C-16 and with the engine running through fuse C-20, and is grounded at all times at B-2.

Refer to Section 1A of the Workshop Manual for further diagnosis.

ALARM AND RELAY CONTROLS

Circuit Schematic

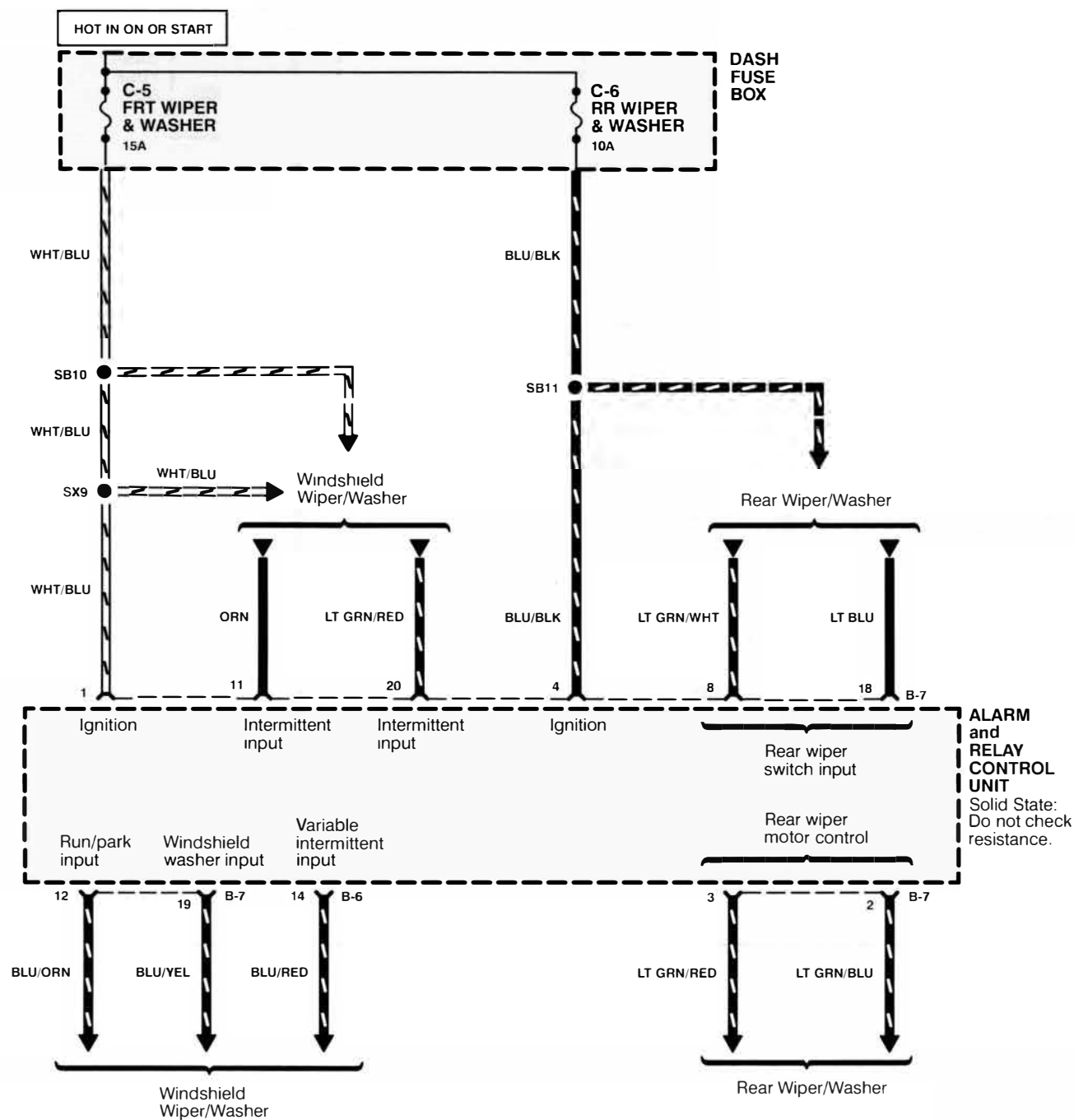




(cont'd)

ALARM AND RELAY CONTROLS

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

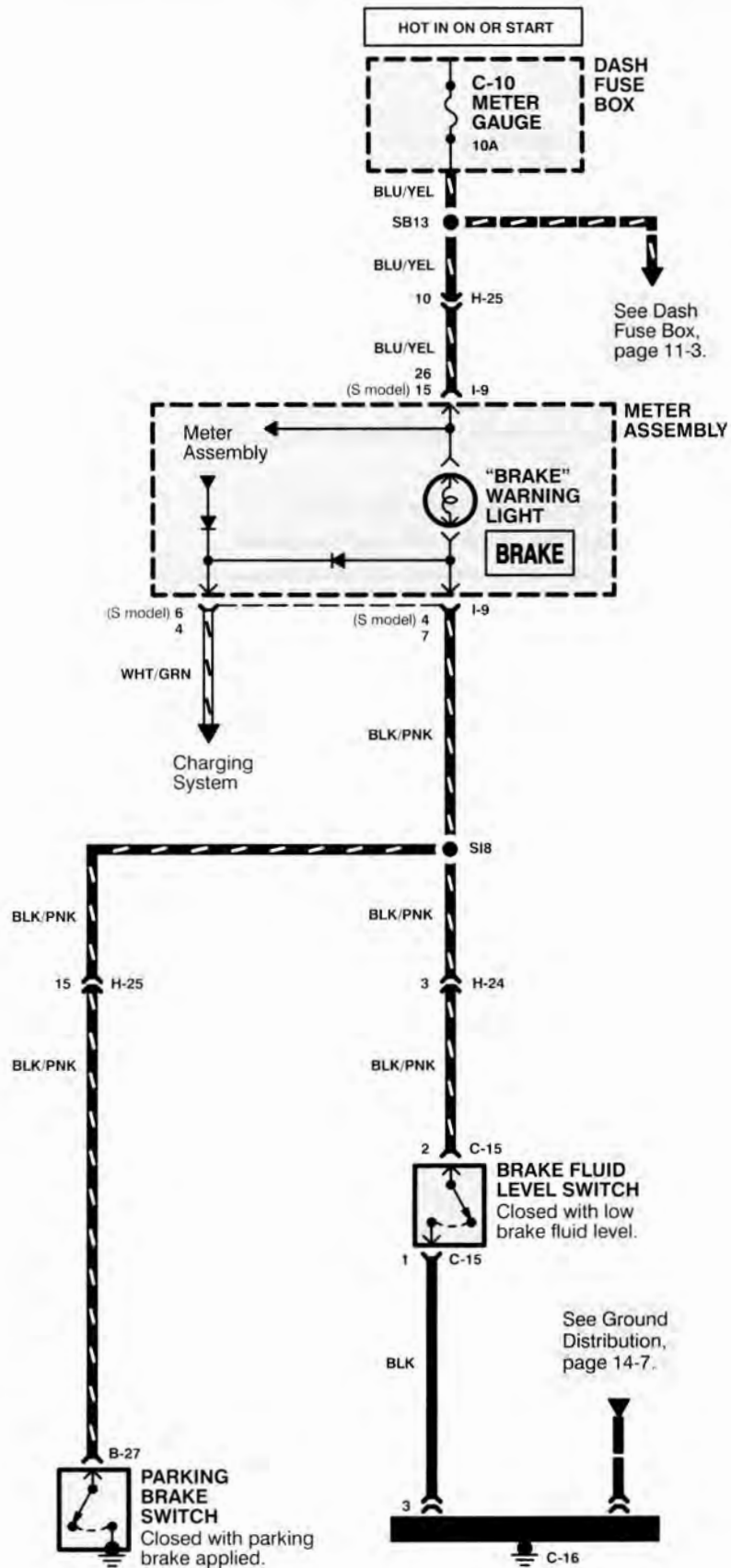
<u>Component</u>	<u>Photo No.</u>
Alarm and Relay Control	
Unit	Behind right kick panel 116
Dash Fuse Box	Behind left dash side trim panel 55
Driver's Seat Belt Switch	In left front seat belt buckle
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Starter Switch	Underside of steering column 46
Taillight Relay	In fuse/relay box 35
<u>Connector</u>	
B-11 (8-WHT)	Below I/P, right of steering column 58
B-24 (3-BLK)	Below driver's seat 104
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
<u>Ground</u>	
B-2	Above right dash side trim panel 116
B-19	Behind top of left dash side trim panel 71

Circuit Operation

The alarm and relay control unit controls the Key-in ignition warning, seat belt warning, windshield wiper/washer system, rear wiper/washer system, doors open, dome light, and the rear defogger.

BRAKE WARNING SYSTEM

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Brake Fluid Level Switch Left rear of engine compartment	39
Dash Fuse Box Behind left dash side trim panel	55
Parking Brake Switch Below rear of center console	67
Connector	
H-24 (18-YEL) Below I/P, above left dash side trim panel, on bracket	70
H-25 (22-BLU) Below I/P, above left dash side trim panel, on bracket	71
I-9 (30-GRN) On left top of meter assembly	53
Ground	
C-16 Left rear corner of engine compartment, on inner fender panel	39

Circuit Operation

The "BRAKE" warning light goes on to alert the driver that the parking brake is applied or that the brake fluid level switch (ABS) is closed. It also lights as a bulb test when the engine is cranked.

Parking Brake Switch

With the starter switch in ON or START, battery voltage is applied to fuse C-10 and to the "BRAKE" warning light. When the parking brake is applied, the parking brake switch closes and provides a ground for the light. The "BRAKE" warning light goes on to remind the driver that the parking brake is applied.

Brake Fluid Level Switch

With the starter switch in ON or START, battery voltage is applied to fuse C-10 and to the "BRAKE" warning light. If the brake fluid is low, the brake fluid level switch closes and provides a ground for the light. The "BRAKE" warning light goes on to warn the driver of low brake fluid level in the brake master cylinder. (Note: check brake pad wear before adding fluid.)

Bulb Check

With the starter switch in START, battery voltage is applied to the "BRAKE" warning light. The generator will provide ground until the engine is running. The "BRAKE" warning light goes on to test the brake warning light bulb and then goes off. See Charging System for further details.

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Dash Fuse Box	Behind left dash side trim panel 55
Oil Pressure Sender Unit	Lower front of engine 23
Oil Pressure Switch	Lower front of engine 23
Connector	
E-2 (1-GRY)	Lower left front of engine 23
H-5 (16-GRN)	Left side of engine compartment 33
H-16 (22-WHT)	Behind right dash side trim panel 120
H-24 (18-YEL)	Below I/P, above left dash side trim panel, on bracket 70
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
I-9 (30-GRN)	On left top of meter assembly 53
I-10 (22-GRN)	On right top of meter assembly 53
Ground	
C-39	Right rear corner of engine compartment, on inner fender panel 45

Circuit Operation

With the starter switch in ON or START, the oil pressure warning light will go on and the oil pressure gauge will show low oil pressure until the engine is started and normal oil pressure is obtained.

If the engine oil pressure falls below normal oil pressure and does not increase, the oil pressure switch will close and the oil pressure sending unit will decrease in resistance. The oil pressure warning light will go on and stay on and the oil pressure gauge will show low oil pressure.

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.	
Alarm and Relay Control		
Unit	Behind right kick panel	116
Dash Fuse Box	Behind left dash side trim panel	55
Driver's Seat Belt Switch	In left front seat belt buckle	
Fuse/Relay Box	Right side of engine compartment, on inner fender panel	41
Left Front Door Switch	Near left front door striker	75
Starter Switch	Underside of steering column	46
Taillight Relay	In fuse/relay box	35
Connector		
B-11 (8-WHT)	Below I/P, right of steering column	58
B-12 (16-WHT)	Below I/P, right of steering column	58
B-22 (2-WHT)	In left center pillar, behind door switch	
B-24 (3-BLK)	Below driver's seat	104
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket	100
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket	71
I-9 (30-GRN)	On left top of meter assembly	53
Ground		
B-2	Above right dash side trim panel	116
B-26	Below rear of center console	67

Circuit Operation

Key-In Ignition Warning

When the key remind switch is closed, battery voltage is applied to the PNK/BLU wire of the alarm and relay control unit. With the left front door open, ground is provided at the GRY/RED wire of the alarm and relay control unit and the beeper sounds.

Seat Belt Warning

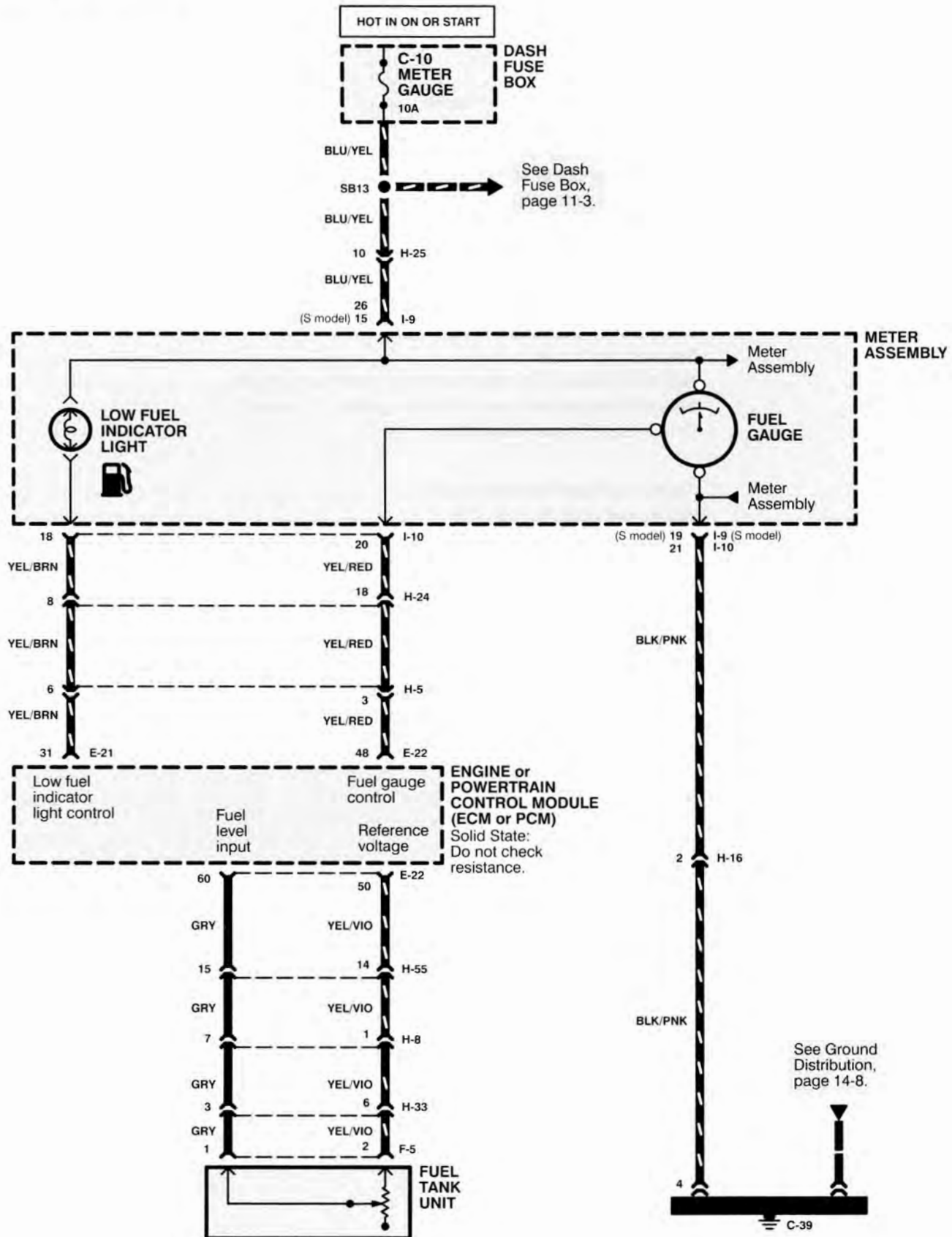
With the starter switch in ON or START, battery voltage is applied to the seat belt warning light from fuse C-10. With the driver's seat belt unbuckled, ground is provided at the BLU wire of the alarm and relay control unit. With the starter switch in the ON position, the seat belt warning light turns on and the beeper will sound for four to eight seconds. With the driver's seat belt buckled, the seat belt warning light turns on for four to eight seconds, but the beeper does not sound.

Lights-on Warning

When the starter switch is turned from the ON or START position to the OFF position, and the park lights are on, the taillight relay applies battery voltage to the alarm and relay control unit at the GRN/RED wire. The beeper will sound continuously until the lights are turned off.

FUEL LEVEL INDICATION SYSTEM

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Dash Fuse Box	Behind left dash side trim panel 55
Engine or Powertrain Control Module (ECM or PCM)	Right rear of engine compartment 60
Fuel Tank Unit	Beneath rear of vehicle, in right front of fuel tank 124
Connector	
H-5 (16-GRN)	Left side of engine compartment 33
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-16 (22-WHT)	Behind right dash side trim panel 120
H-24 (18-YEL)	Below I/P, above left dash side trim panel, on bracket 70
H-33 (20-WHT)	In floor, below right front seat 110
H-55 (16-BLK)	Right side of engine compartment 59
I-9 (30-GRN)	On left top of meter assembly 53
I-10 (22-GRN)	On right top of meter assembly 53
Ground	
C-39	Right rear corner of engine compartment, on inner fender panel 45

Circuit Operation

Fuel Gauge

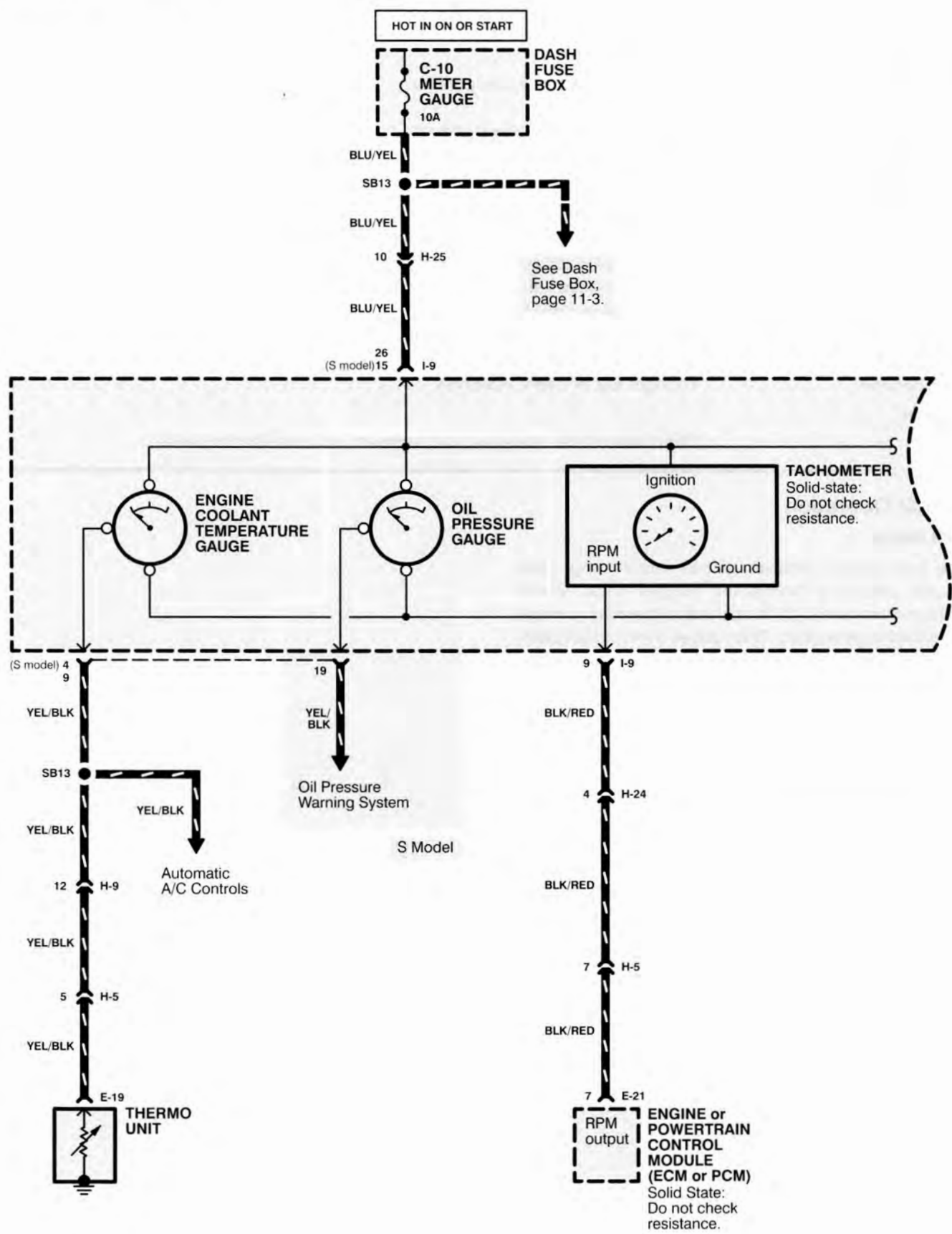
The fuel gauge consists of two intersecting coils wound around a permanent magnet rotor. When voltage from fuse C-10 is applied to the coils, a magnetic field is generated. This causes the rotor to rotate and the gauge needle to move. The magnetic field is controlled by the engine or powertrain control module (ECM or PCM), which receives input from the fuel tank unit, at E-22 pin 60.

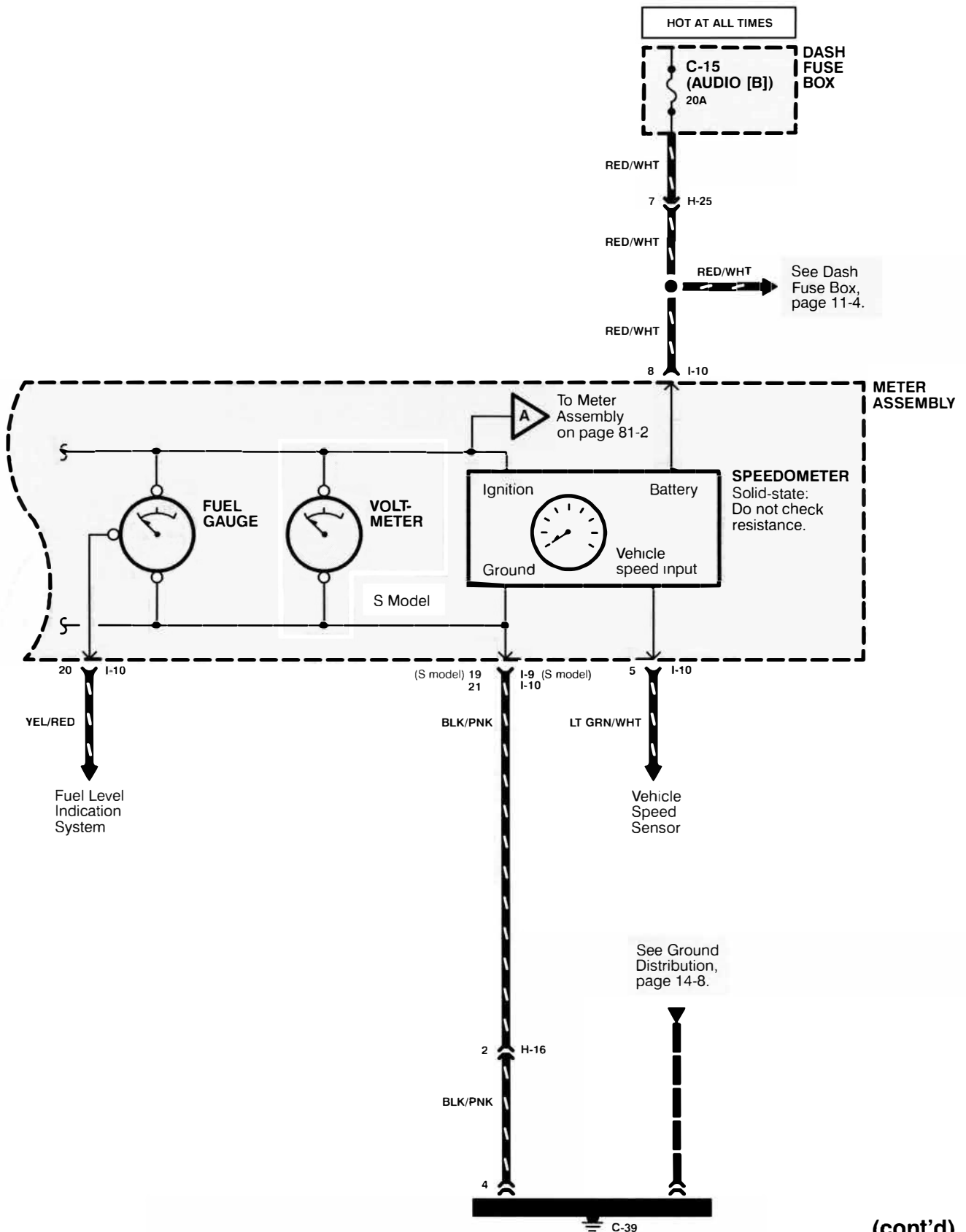
Low Fuel Warning Light

When there is not an adequate amount of the fuel in the fuel tank, the ECM or PCM will provide ground at E-21 pin 31 and the light will illuminate. The ECM or PCM determines when the fuel is low based on input received from the fuel tank unit, at E-22 pin 60.

METER ASSEMBLY

Circuit Schematic

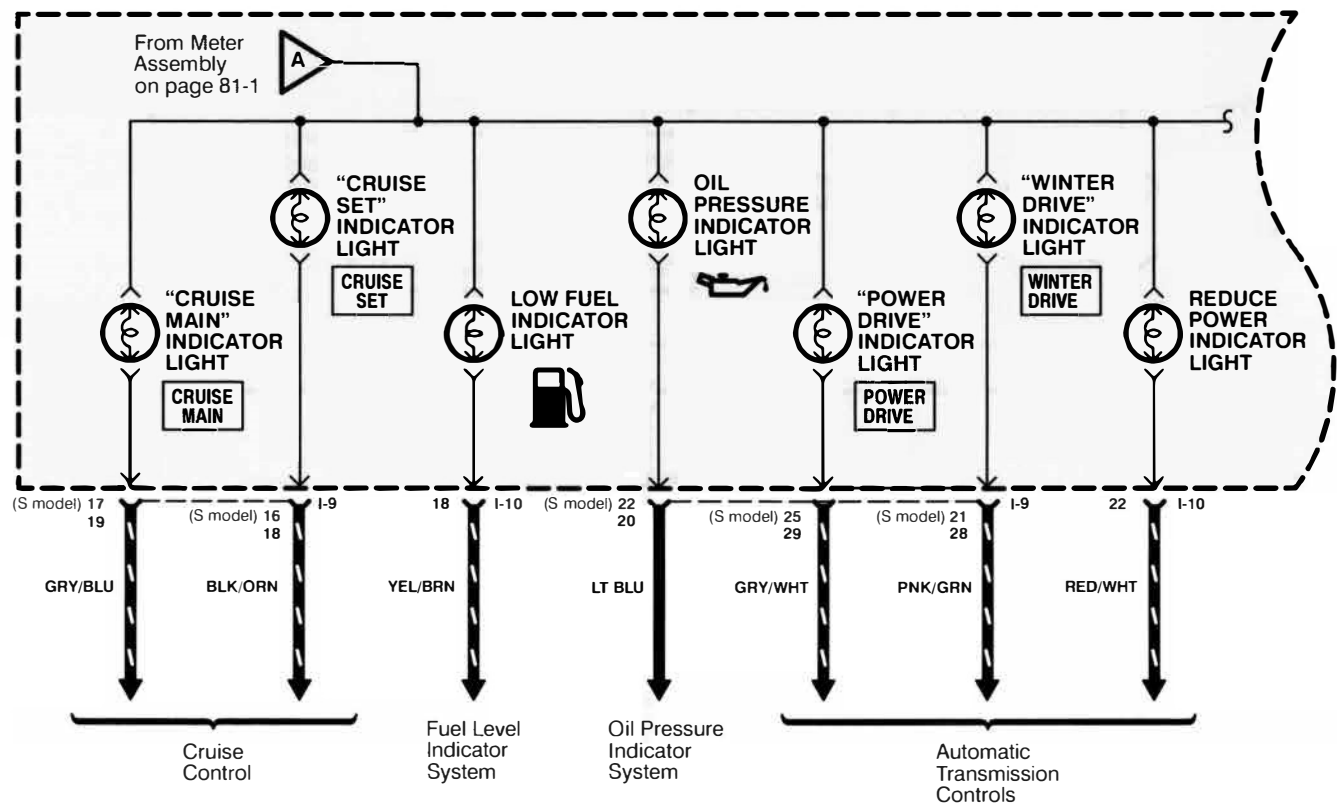


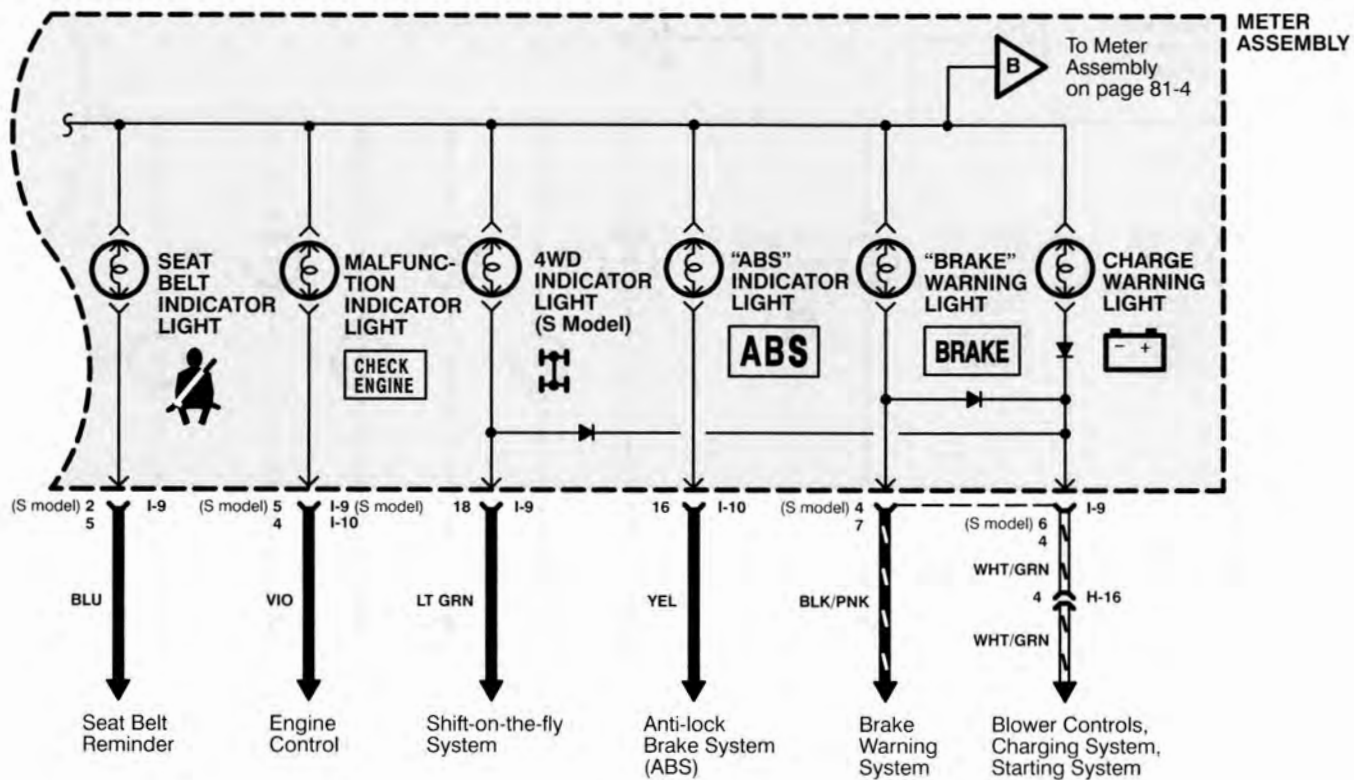


(cont'd)

METER ASSEMBLY

Circuit Schematic

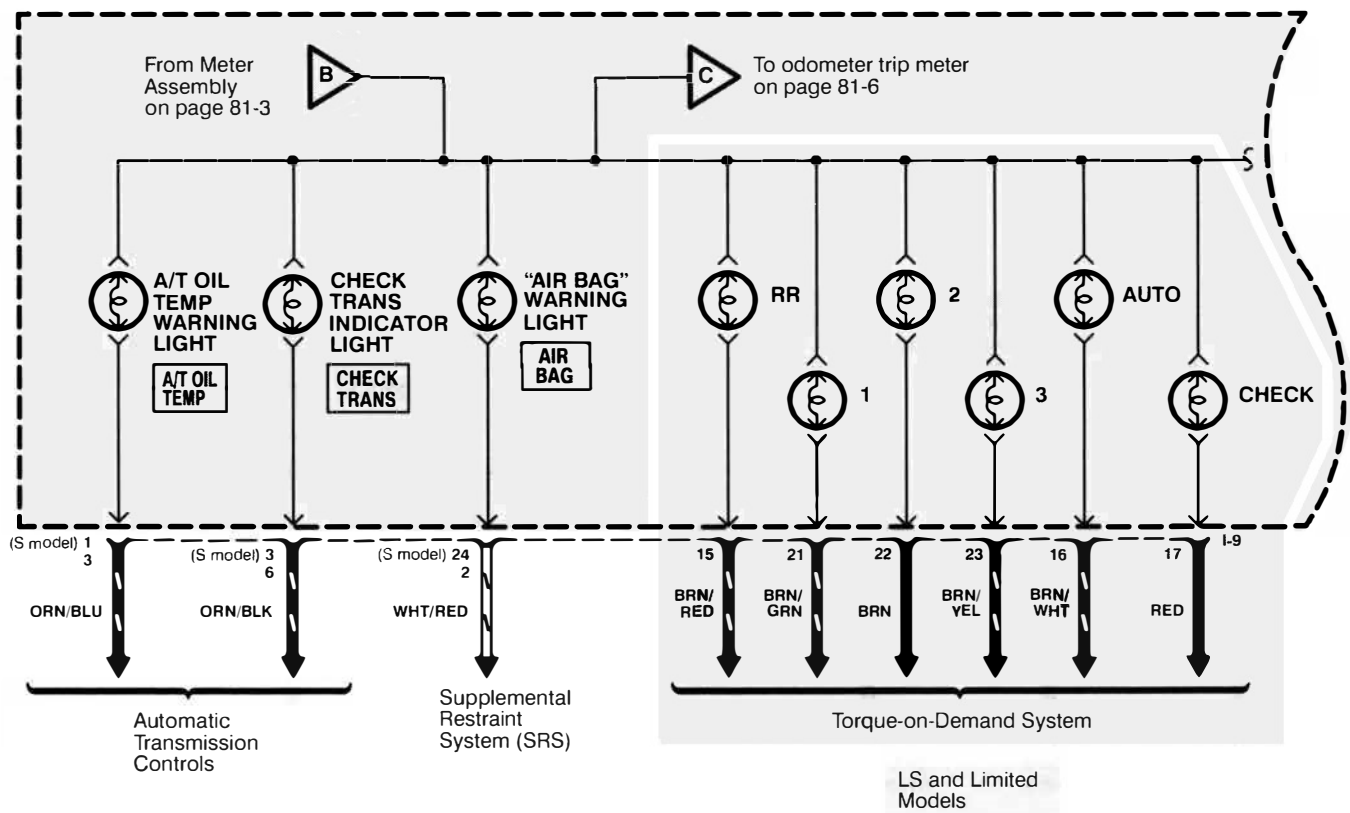


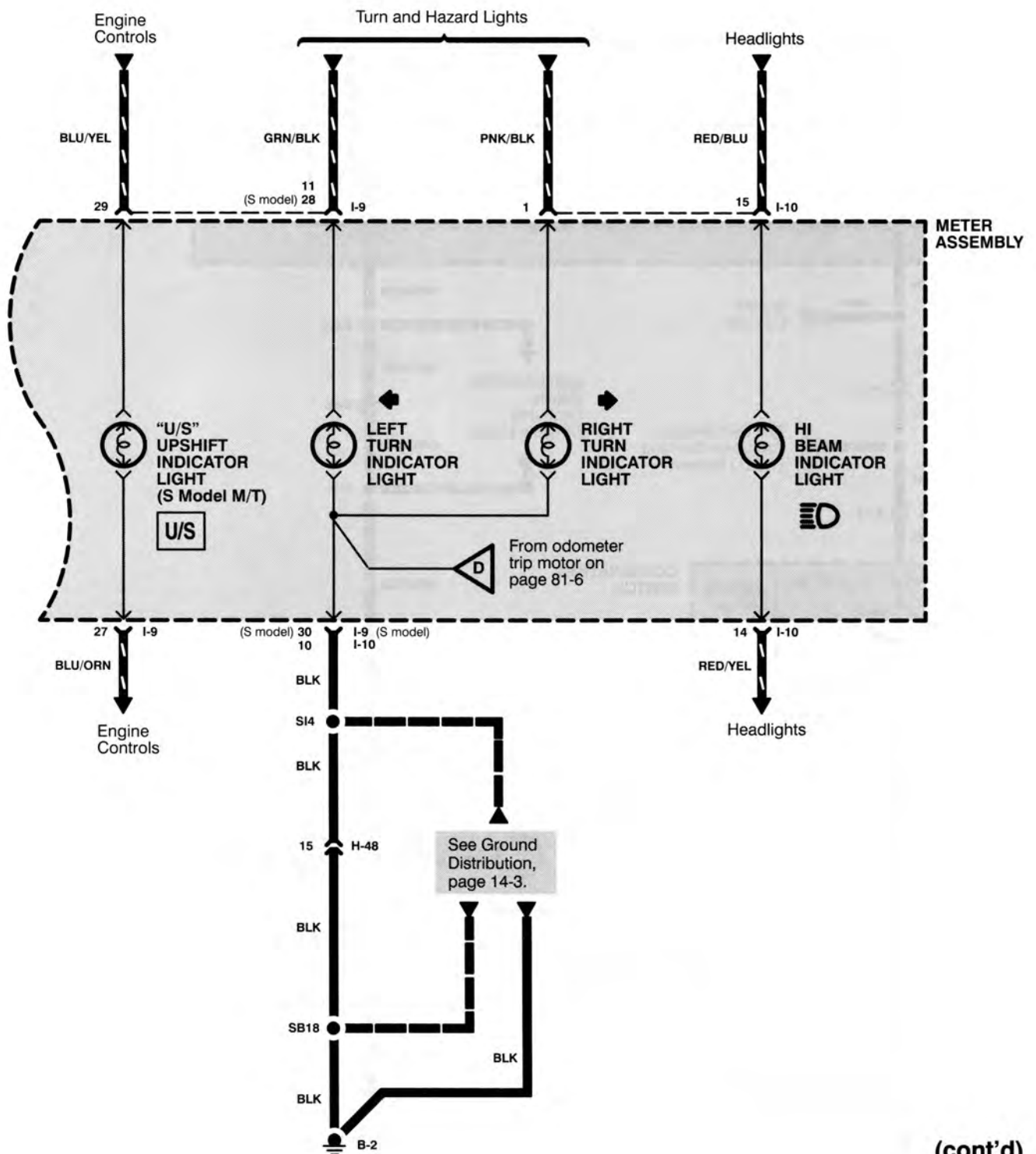


(cont'd)

METER ASSEMBLY

Circuit Schematic

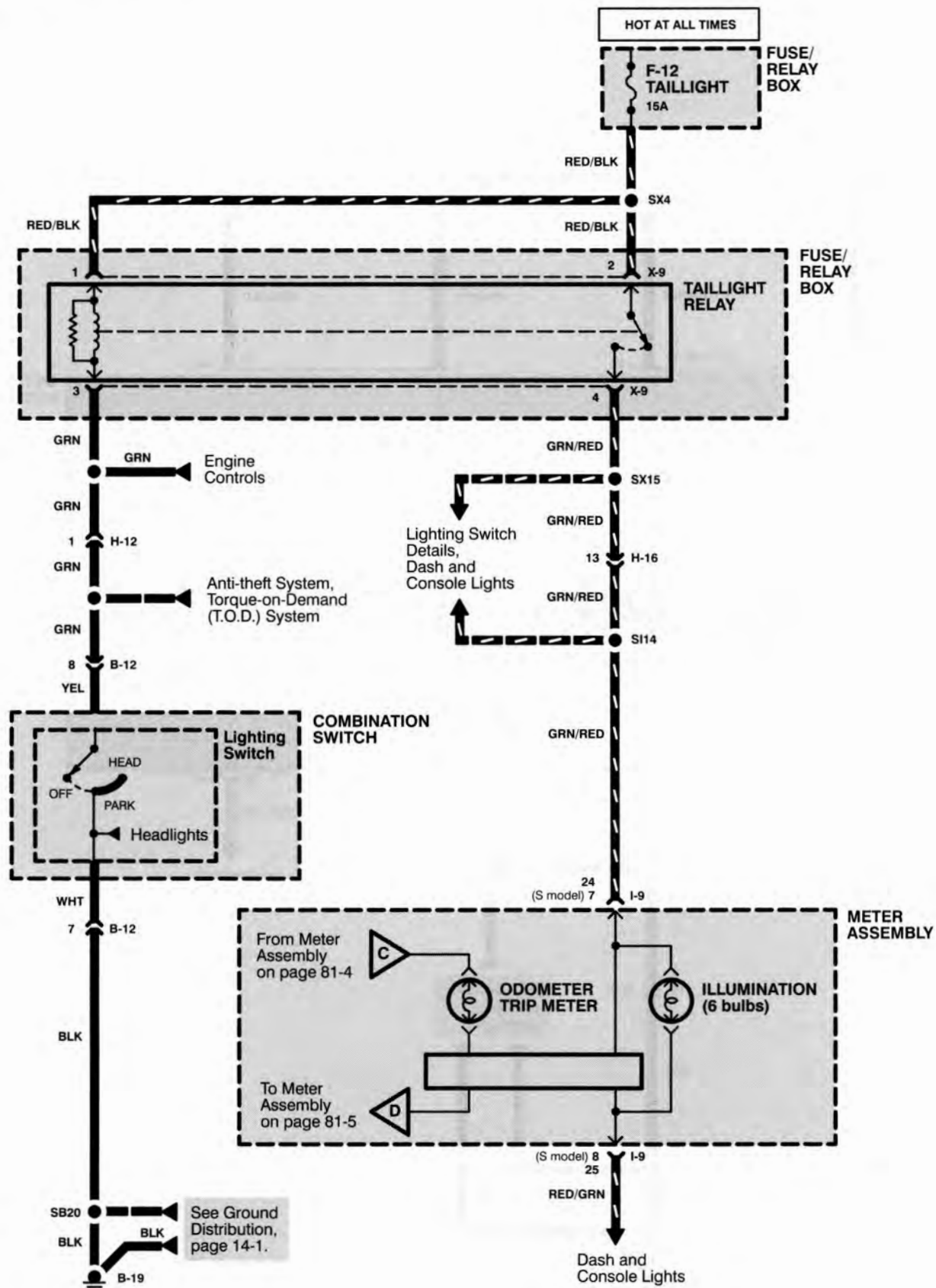


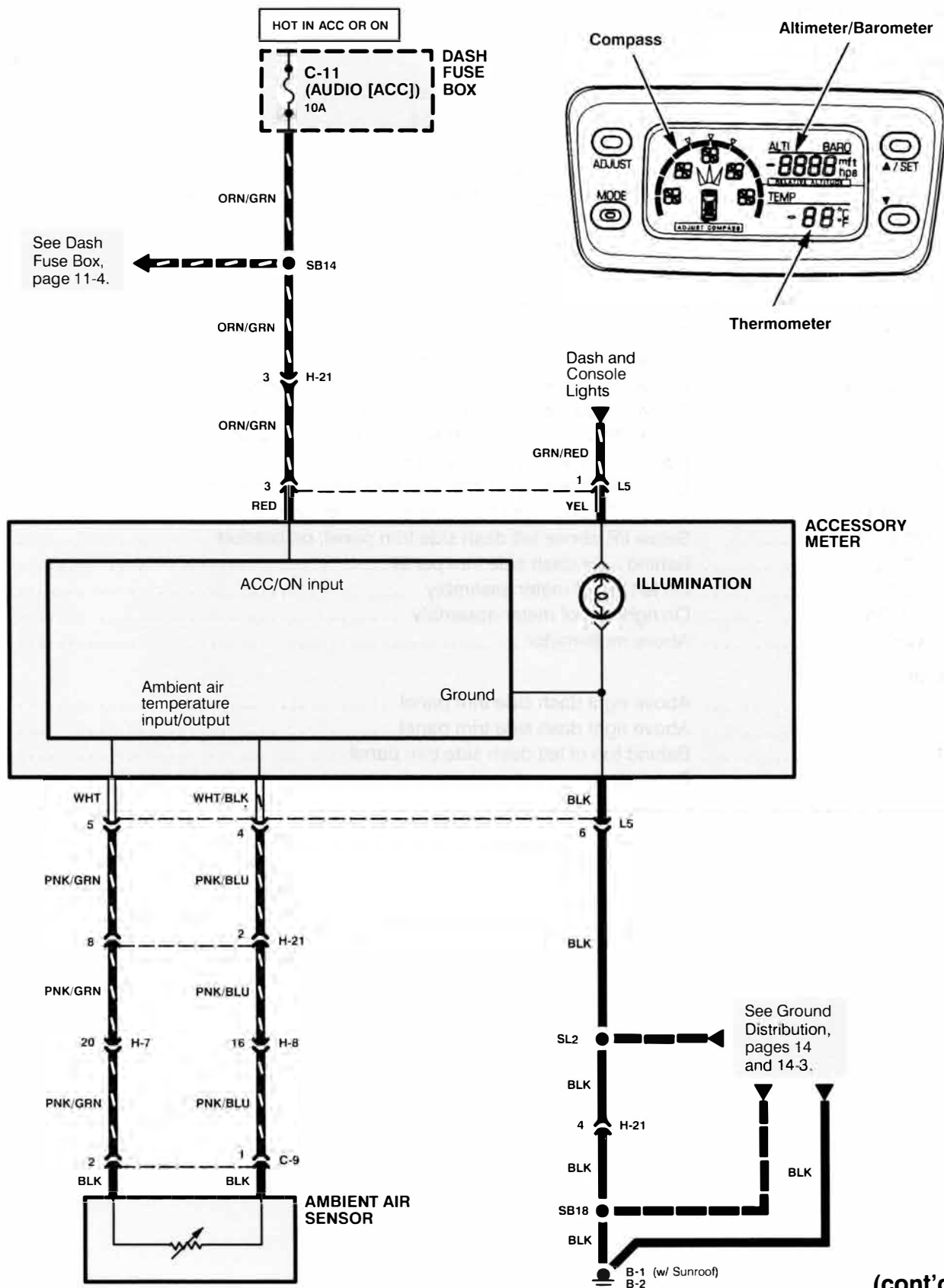


(cont'd)

METER ASSEMBLY

Circuit Schematic





(cont'd)

METER ASSEMBLY

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Ambient Sensor	Top left front of radiator bracket 2
Dash Fuse Box	Behind left dash side trim panel 55
Engine or Powertrain Control Module (ECM or PCM)	Right side of engine compartment 60
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Taillight Relay	In fuse/relay box 35
Thermo Unit	Left front of engine 22

Connector

B-12 (16-WHT)	Below I/P, right of steering column 58
C-9 (2-BRN)	Top left front of radiator bracket 2
H-5 (16-GRN)	Left side of engine compartment 33
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket 69
H-9 (20-BLK)	Below I/P, above left dash side trim panel, on bracket 70
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-16 (22-WHT)	Behind right dash side trim panel 120
H-21 (8-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-24 (18-YEL)	Below I/P, above left dash side trim panel, on bracket 70
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-48 (16-BLK)	Behind right dash side trim panel 120
I-9 (30-GRN)	On left top of meter assembly 53
I-10 (22-GRN)	On right top of meter assembly 53
L-5 (6-WHT)	Above multi-meter 26

Ground

B-1	Above right dash side trim panel 116
B-2	Above right dash side trim panel 116
B-19	Behind top of left dash side trim panel 71
C-39	Right rear corner of engine compartment, on inner fender panel 45

Circuit Operation

Engine Coolant Temperature Gauge

The engine coolant temperature gauge consists of two intersecting coils wound around a permanent magnet rotor. When voltage from fuse C-10 is applied to the coils, a magnetic field is generated. This causes the rotor to rotate and the gauge needle to move. The magnetic field is controlled by the thermo unit. As the resistance in the thermo unit varies, current through the gauge coils changes. The gauge needle moves according to the changing magnetic field.

Tachometer

The tachometer displays engine speed in RPM. Voltage pulses are taken from the ignition system and sent to the tachometer. The tachometer responds to the frequency of the voltage pulses, which increases with engine speed. Solid-state circuits process these pulses into a signal that causes the gauge needle to move.

Oil Pressure Gauge (S Model)

The oil pressure gauge consists of two intersecting coils wound around a permanent magnet rotor (see engine coolant temperature gauge for operation).

Voltmeter (S Model)

The voltmeter measures the voltage through fuse C-10 when the starter switch is in ON or START.

Indicators

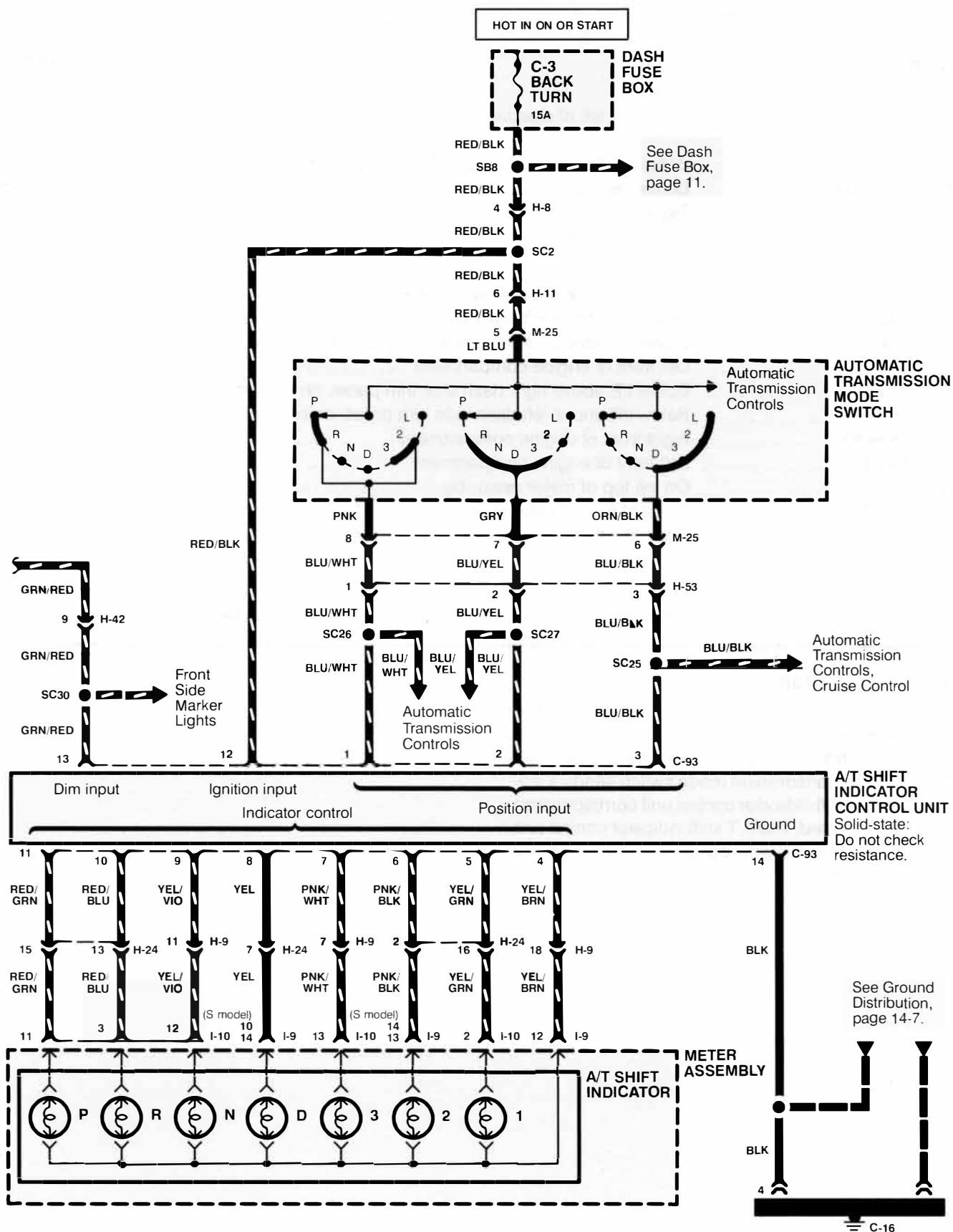
The indicator lights are controlled by different conditions in their associated systems. See the associated system for the indicator light circuit description.

Bulb Check

With the starter switch in ON or START, battery voltage is applied to the "BRAKE" warning and charge warning lights. The generator will provide ground to the circuit until the engine is running. The lights go on to test the light bulbs and then go off after the engine is started.

Circuit Schematic





A/T SHIFT INDICATOR

Component Location Index

(Refer to Section 201 for photographs.)

<u>Component</u>	<u>Photo No.</u>
A/T Shift Indicator Control	
Unit	Below I/P, left of steering column 74
Automatic Transmission	
Mode Switch	Beneath vehicle, on left side of transmission 43
Dash Fuse Box	Behind left dash side trim panel 55
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Taillight Relay	In fuse/relay box 35
<u>Connector</u>	
B-12 (16-WHT)	Below I/P, right of steering column 58
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-9 (20-BLK)	Below I/P, above left dash side trim panel, on bracket 70
H-11 (16-BLK)	Left front of engine compartment 27
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-24 (18-YEL)	Below I/P, above left dash side trim panel, on bracket 70
H-42 (16-BLK)	Right front of engine compartment 31
H-53 (16-GRN)	Left front of engine compartment 27
I-9 (30-GRN)	On left top of meter assembly 53
I-10 (22-GRN)	On right top of meter assembly 53
M-25 (8-BLK)	On left side of transmission 52
<u>Ground</u>	
B-19	Behind top of left dash side trim panel 71
C-16	Left rear corner of engine compartment, on inner fender panel 39

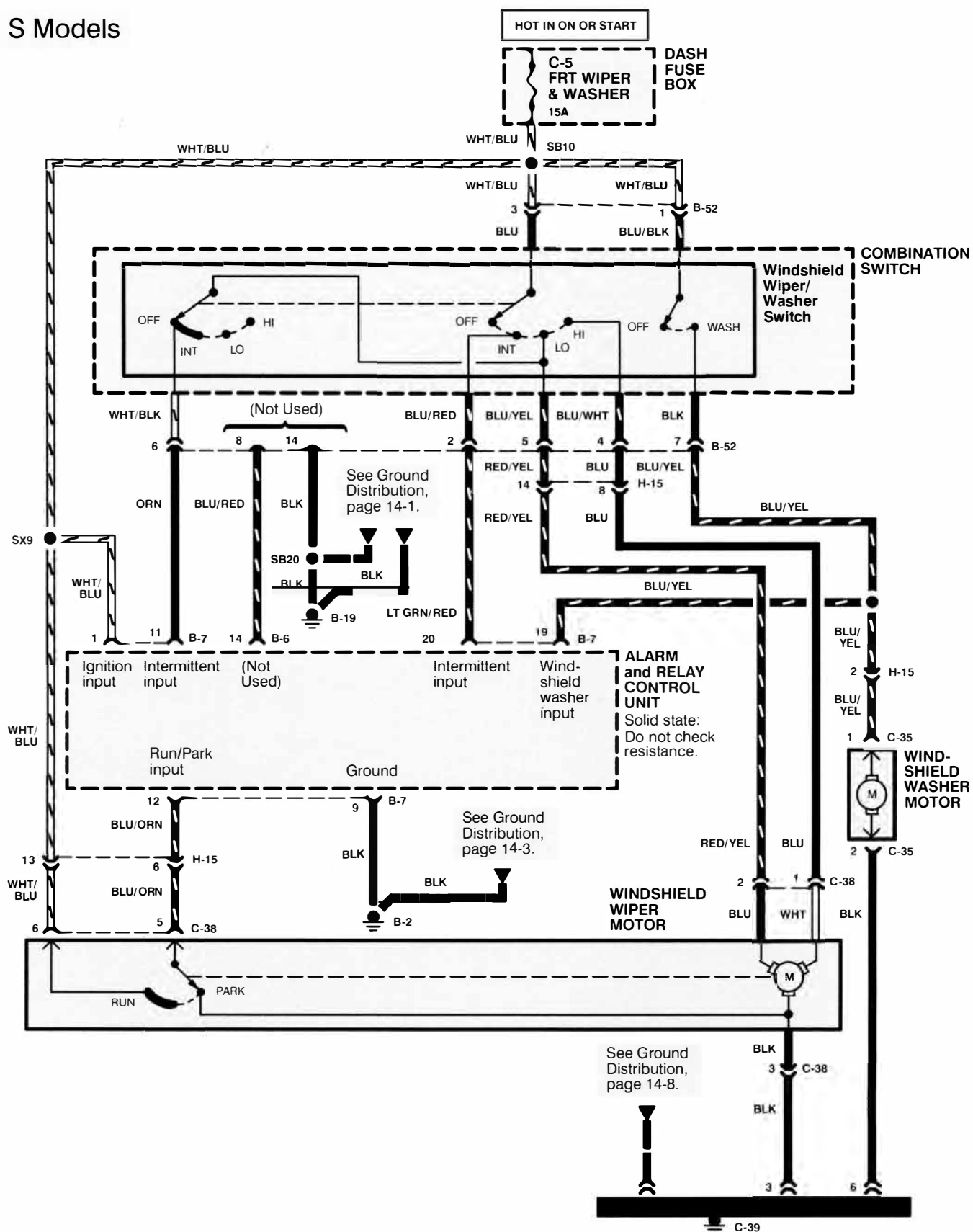
Circuit Operation

With the starter switch in ON or START, battery voltage is applied to the automatic transmission mode switch and the A/T shift indicator control unit from fuse C-3. The automatic transmission mode switch sends a signal to the A/T shift indicator control unit corresponding to the gear selected. The A/T shift indicator control unit applies voltage to the appropriate A/T shift indicator causing it to light up.

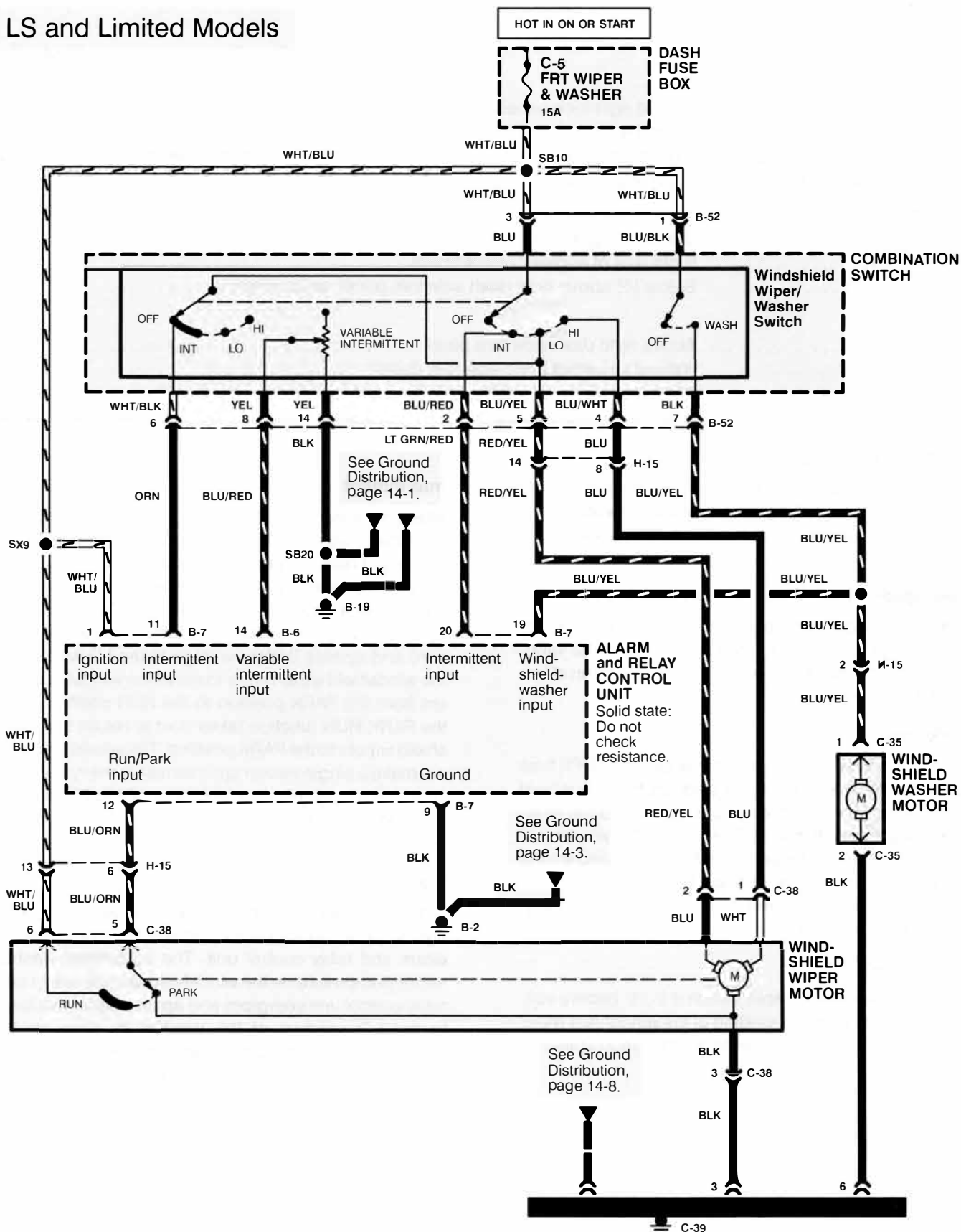
THIS PAGE INTENTIONALLY LEFT BLANK

Circuit Schematic

S Models



LS and Limited Models



WINDSHIELD WIPER/WASHER

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Alarm and Relay Control	
Unit	Behind right kick panel 116
Dash Fuse Box	Behind left dash side trim panel 55
Windshield Washer Motor	Right front corner of engine compartment, in washer fluid reservoir 122
Windshield Wiper Motor	Right rear corner of engine compartment 45
Connector	
B-52 (14-BLK)	Below I/P, right of steering column 58
C-38 (6-WHT)	Right rear of engine compartment 45
H-15 (14-WHT)	Below I/P, above right dash side trim panel, on bracket 115
Ground	
B-2	Above right dash side trim panel 116
B-19	Behind top of left dash side trim panel 71
C-39	Right rear corner of engine compartment, on inner fender panel 45

Circuit Operation

With the starter switch in ON or START, battery voltage is applied to the windshield wiper/washer switch, windshield wiper motor, and alarm and relay control unit from fuse C-5.

Low Speed

When the windshield wiper switch is moved to LO, battery voltage is applied to the LO winding of the windshield wiper motor and the windshield wipers run at low speed.

Park/Run

When the windshield wiper switch is turned to OFF, fuse C-5 provides battery voltage through the windshield wiper motor, alarm and relay control unit, and the windshield wiper switch to the LO winding of the windshield wiper motor. When the switch on the motor reaches the PARK position, battery voltage from fuse C-5 is removed from the circuit and the windshield wipers stop in the PARK position.

High Speed

When the windshield wiper switch is in HI, battery voltage is applied to the HI winding of the windshield wiper motor and the windshield wipers run at high speed.

Intermittent

When the windshield wiper switch is moved to INT, the windshield wiper switch applies battery voltage to the alarm and relay control unit. The alarm and relay control unit momentarily energizes every 3 to 4 seconds (S models) or a variable time of 2 to 20 seconds (LS and Limited models) (depending on intermittent ring position) and applies battery voltage to the LO winding of the windshield wiper motor to move the windshield wipers from the PARK position to the RUN position, then the PARK/RUN function takes over to return the windshield wipers to the PARK position. The windshield wipers make a single sweep approximately every 3 to 4 seconds (S models) or a variable time of 2 to 20 seconds (LS and Limited models) (depending on intermittent ring position).

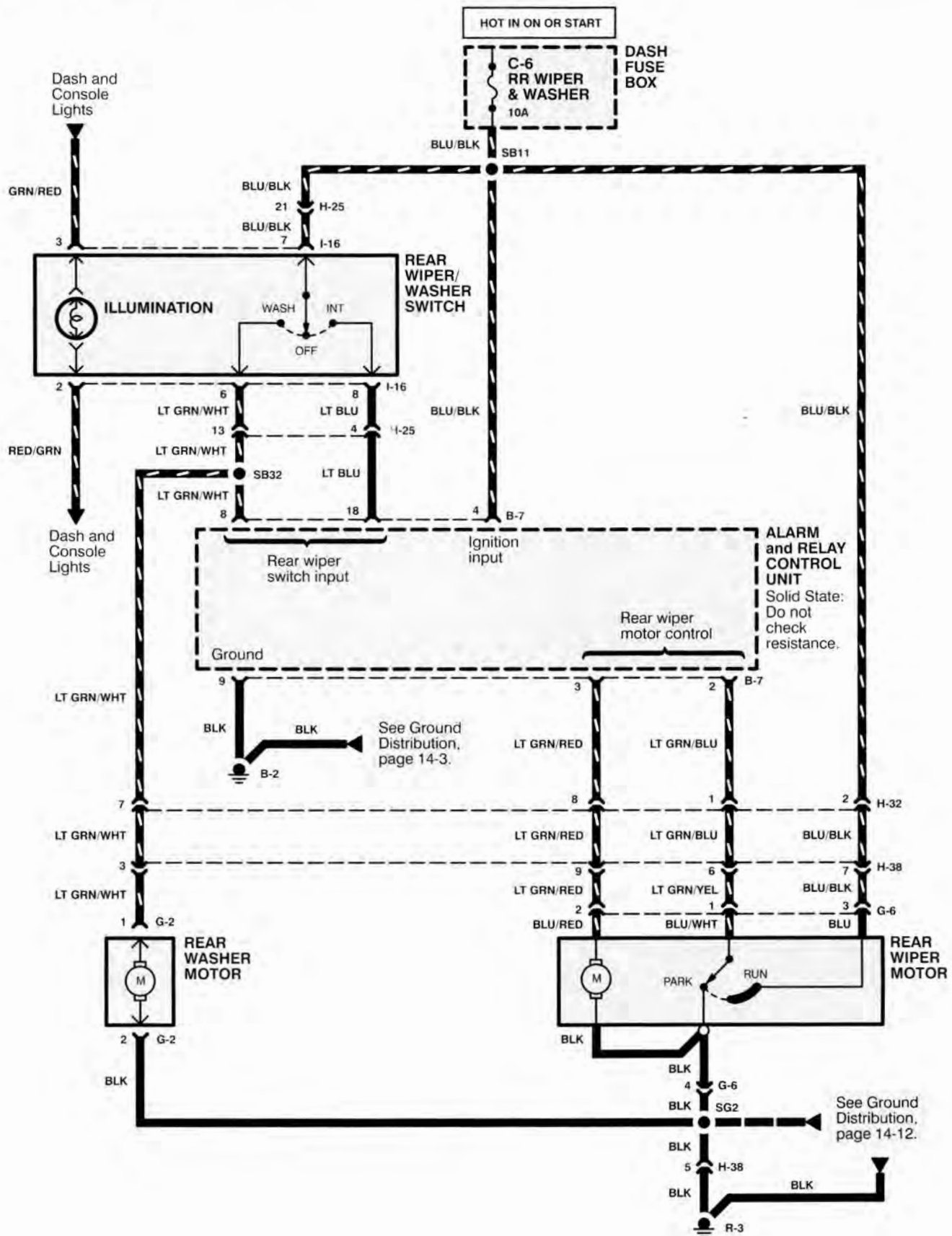
Washer

When the wiper level is pulled towards you, battery voltage is applied to the windshield washer motor and the alarm and relay control unit. The windshield washer motor pumps fluid on the windshield and the alarm and relay control unit energizes and applies battery voltage to the LO winding of the windshield wiper motor through the windshield wiper switch. The wipers run at LO speed until the wiper lever is released.

THIS PAGE INTENTIONALLY LEFT BLANK

REAR WIPER/WASHER

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Alarm and Relay Control	
Unit	Behind right kick panel 116
Dash Fuse Box	Behind left dash side trim panel 55
Rear Washer Motor	Inside left tailgate door, behind trim pad 93
Rear Wiper Motor	Inside left tailgate door, behind trim pad 91
Connector	
G-6 (4-WHT)	Inside left tailgate door, behind trim pad 91
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket 71
H-32 (22-WHT)	Below left front seat 105
H-38 (10-WHT)	Left rear of luggage room 89
Ground	
R-3	Left side of luggage room 90

Circuit Operation

With the starter switch in ON or START, battery voltage is applied to the rear wiper/washer switch, rear wiper motor, and alarm and relay control unit from fuse C-6.

Park/Run

When the rear wiper/washer switch is turned to OFF, fuse C-6 provides battery voltage through the rear wiper motor and alarm and relay control unit to the rear wiper motor. When the switch on the motor reaches the PARK position, battery voltage from fuse C-6 is removed from the circuit and the rear wiper stops in the PARK position.

Intermittent

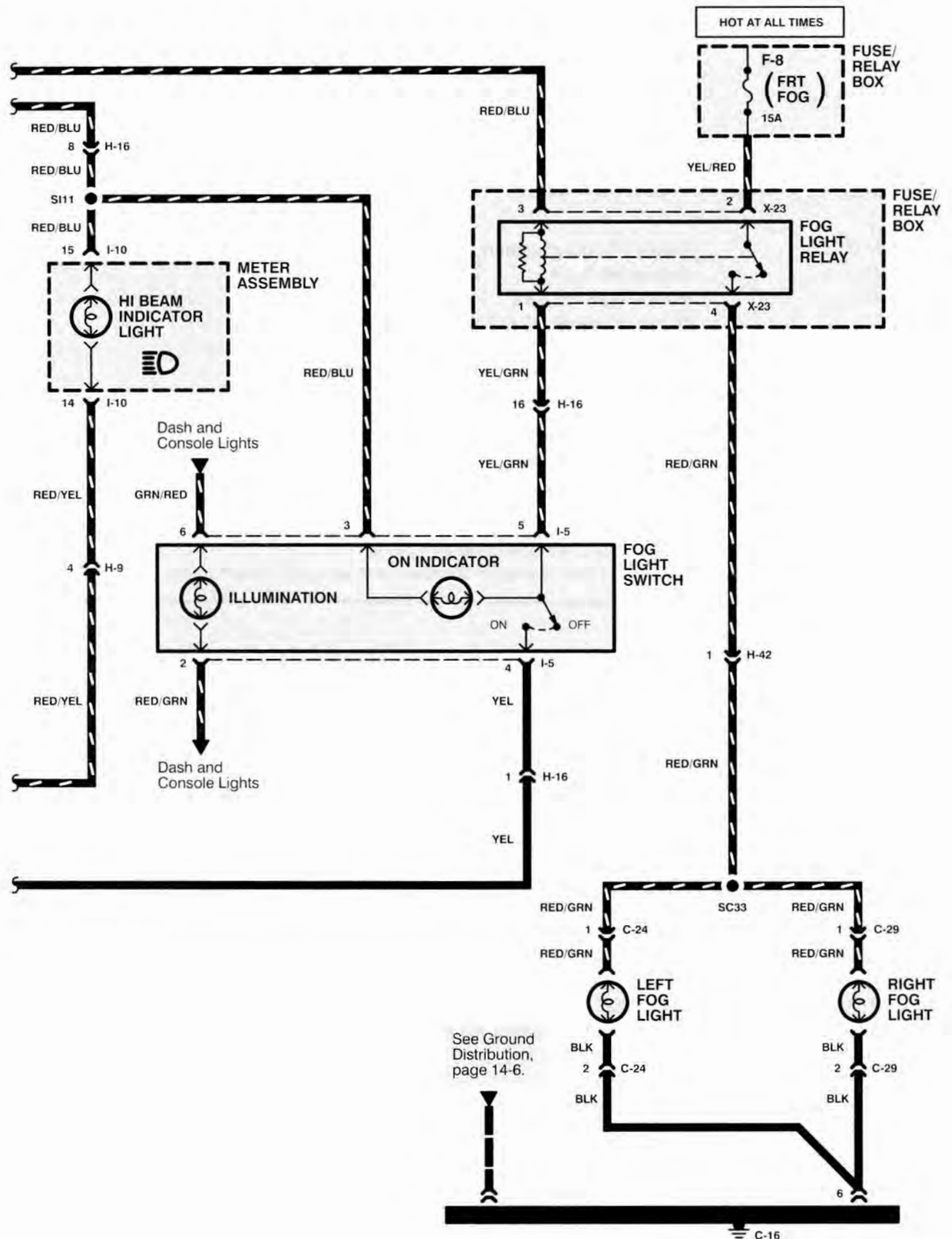
When the rear wiper/washer switch is moved to INT, the rear wiper switch applies battery voltage to the alarm and relay control unit. The alarm and relay control unit momentarily energizes every 3 to 4 seconds and applies battery voltage to the rear wiper motor to move the rear wiper from the PARK position to the RUN position. The PARK/RUN function takes over to return the rear wiper to the PARK position. The rear wiper makes a single sweep approximately every 3 to 4 seconds.

Washer

When the rear wiper/washer switch is moved to WASH, battery voltage is applied to the rear washer motor and the alarm and relay control unit. The rear washer motor pumps fluid on the rear window and the alarm and relay control unit energizes and applies battery voltage to the rear wiper motor through the rear wiper switch. The wiper runs until the switch is released.

Circuit Schematic





HEADLIGHTS AND FOG LIGHTS

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Dash Fuse Box	Behind left dash side trim panel 55
Diode Box 4	In dash fuse box 55
Fog Light Relay	In fuse/relay box 35
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Lighting Relay	In fuse/relay box 35
Connector	
B-12 (16-WHT)	Below I/P, right of steering column 58
C-24 (2-GRY)	Behind left fog light 4
C-29 (2-GRY)	Behind right fog light 4
H-9 (20-BLK)	Below I/P, above left dash side trim panel, on bracket 70
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-13 (6-GRY)	Below I/P, above right dash side trim panel, on bracket 100
H-15 (14-WHT)	Below I/P, above right dash side trim panel, on bracket 115
H-16 (22-WHT)	Behind right dash side trim panel 120
H-41 (16-BLK)	Right front of engine compartment 31
H-42 (16-BLU)	Right front of engine compartment 31
I-10 (22-GRN)	On right top of meter assembly 53
Ground	
B-19	Behind top of left dash side trim panel 71
C-16	Left rear corner of engine compartment, on inner fender panel 39

Circuit Operation

Lo Beam Operation

With the lighting switch in HEAD and the dimmer/passing switch in LO, the lighting switch provides a ground path to the lighting relay, and the dimmer/passing switch provides a ground path for the lo beam filaments. The lighting relay energizes and provides battery voltage to the headlights and the lo beams light up.

Hi Beam Operation

With the lighting switch in HEAD and the dimmer/passing switch in HI, the lighting switch provides a ground to the lighting relay and the dimmer/passing switch provides a ground path for the high beam filaments. The lighting relay energizes and provides battery voltage to the headlights and the hi beams light up.

Battery voltage is also applied to the hi beam indicator and the hi beam indicator lights up to remind the driver that the hi beams are on.

Flash To Pass Operation

The flash to pass feature works with the lighting switch in OFF, PARK, or HEAD (lo beams). When the passing switch is turned on, it provides a ground path for both the hi and lo beam filaments and the lighting relay. The lighting relay energizes and applies battery voltage to the headlights and to the hi beam indicator light and the hi and lo beams light up. The hi beam indicator also flashes during the flash to pass operation. The flash to pass function has no effect if the hi beams are already on.

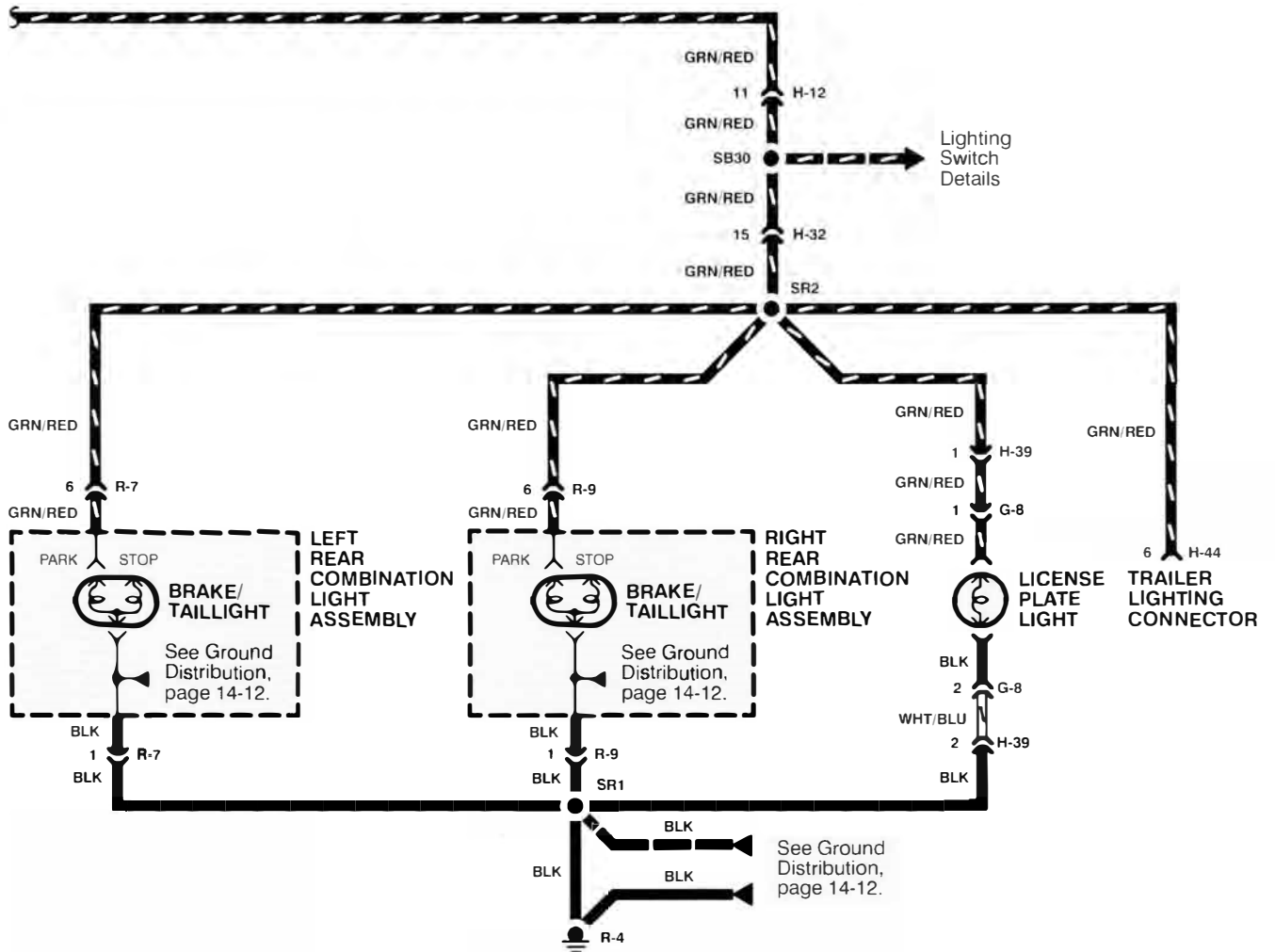
Fog Light Operation

With the lighting switch in HEAD and the dimmer/passing switch in LO, the lighting switch provides a ground path to the lighting relay which provides power through fuse F-8 to the fog light relay. A ground path is provided for the fog light relay through the fog light switch and the dimmer/passing switch. When the relay is energized, power is provided to both fog lights and the fog lights light. When the fog light switch is turned off or when the dimmer/passing switch is moved to HI, ground is removed from the fog light relay and the fog lights go out.

THIS PAGE INTENTIONALLY LEFT BLANK

Circuit Schematic





FRONT SIDE MARKER, FRONT PARK, REAR PARK, AND LICENSE PLATE LIGHTS

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Taillight Relay	In fuse/relay box 35
Trailer Lighting Connector	
H-44 (6-WHT)	Below left rear corner of vehicle, behind grommet 102
Connector	
B-12 (16-WHT)	Below I/P, right of steering column 58
C-22 (4-GRY)	Behind left front combination light assembly 3
C-31 (4-GRY)	Behind right front combination light assembly 3
G-8 (2-WHT)	Inside right tailgate door, behind trim pad 95
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-32 (22-WHT)	Below left front seat 105
H-39 (2-WHT)	Right rear of luggage room 96
H-42 (16-BLU)	Right front of engine compartment 31
R-7 (6-WHT/BLK)	Behind left taillight assembly 103
R-9 (6-WHT/BLK)	Behind right taillight assembly 103
Ground	
B-19	Behind top of left dash side trim panel 71
C-16	Left rear corner of engine compartment, on inner fender panel 39
R-4	Left side of luggage room 90

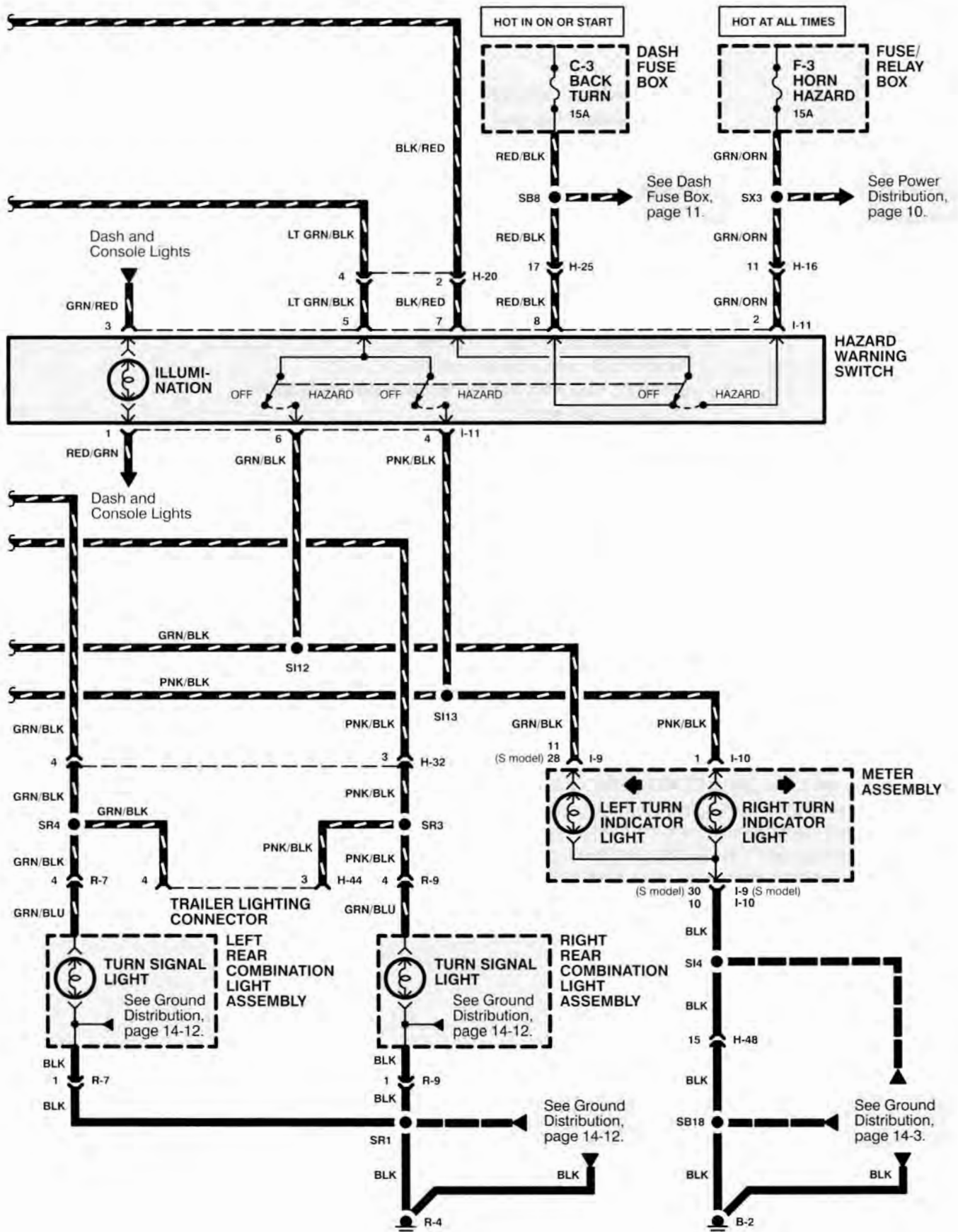
Circuit Operation

Battery voltage is applied to the taillight relay from fuse F-12. With the lighting switch in PARK or HEAD, ground is provided to the taillight relay. The taillight relay energizes and battery voltage is applied to the park, license, and side marker lights and the lights go on.

THIS PAGE INTENTIONALLY LEFT BLANK

Circuit Schematic





TURN AND HAZARD LIGHTS

Component Location Index

(Refer to Section 201 for photographs.)

Component		Photo No.
Dash Fuse Box	Behind left dash side trim panel	55
Flasher Unit	On top of dash fuse box	68
Fuse/Relay Box	Right side of engine compartment, on inner fender panel	41
Trailer Lighting Connector		
H-44 (6-WHT)	Below left rear corner of vehicle, behind grommet	102
Connector		
B-12 (16-WHT)	Below I/P, right of steering column	58
C-22 (4-GRY)	Behind left front combination light assembly	3
C-31 (4-GRY)	Behind right front combination light assembly	3
H-9 (20-BLK)	Below I/P, above left dash side trim panel, on bracket	70
H-16 (22-WHT)	Behind right dash side trim panel	120
H-20 (4-WHT)	Behind right dash side trim panel	120
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket	71
H-32 (22-WHT)	Below left front seat	105
H-48 (16-BLK)	Behind right dash side trim panel	120
I-9 (30-GRN)	On left top of meter assembly	53
I-10 (22-GRN)	On right top of meter assembly	53
R-7 (6-WHT/BLK)	Behind left taillight assembly	103
R-9 (6-WHT/BLK)	Behind right taillight assembly	103
Ground		
B-2	Above right dash side trim panel	116
B-18	Behind top of left dash side trim panel	71
C-16	Left rear corner of engine compartment, on inner fender panel	39
R-4	Left side of luggage room	90

Circuit Operation

Turn Operation

With the starter switch in ON or START, battery voltage is applied to the hazard warning switch from fuse C-3. When the hazard warning switch is in the OFF position, battery voltage is applied to the flasher unit. Its output is pulsing voltage which is directed to either the RIGHT or LEFT position on the turn signal switch and causes the turn lights and turn indicator lights to flash in either direction.

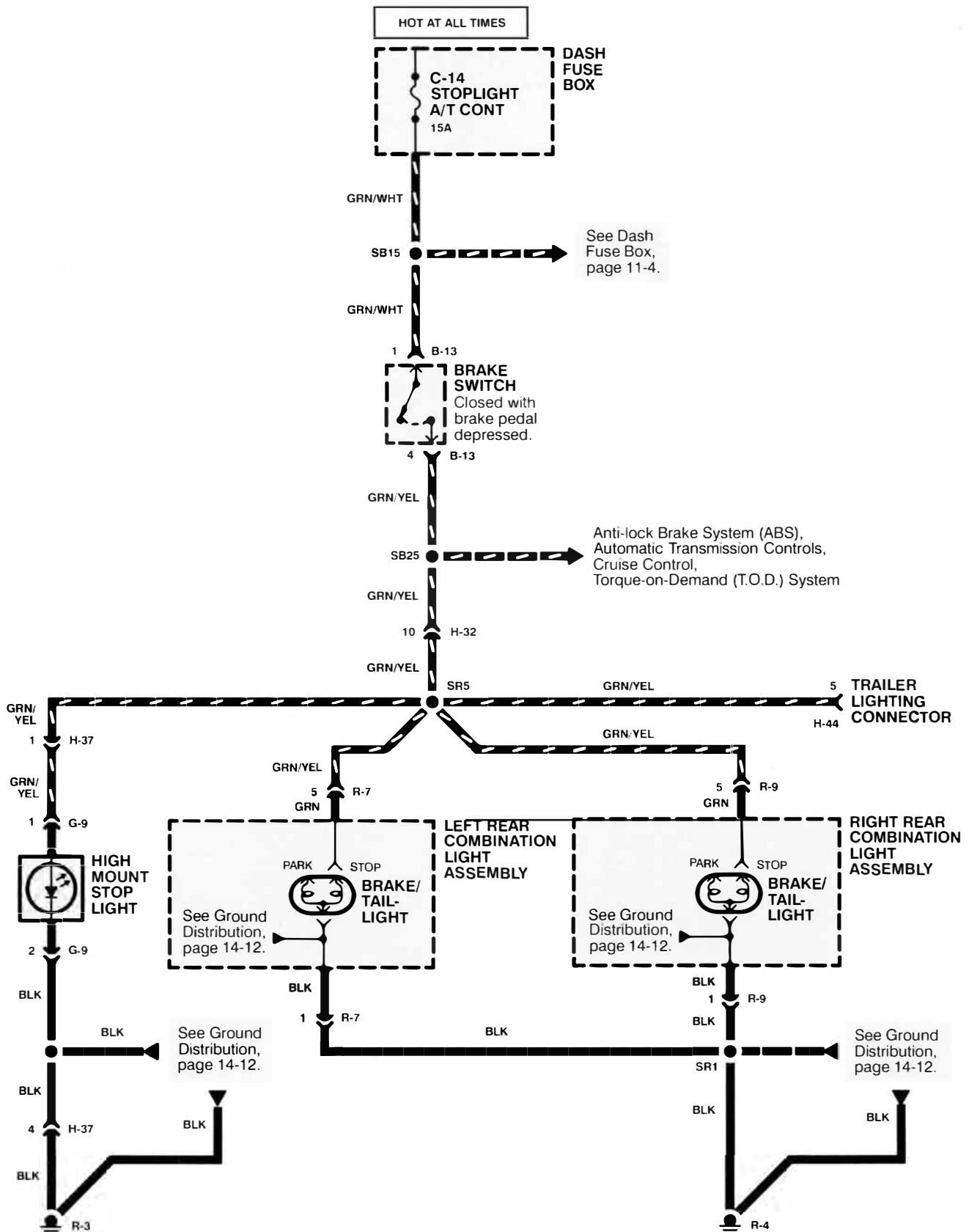
Hazard Operation

Battery voltage is applied to the hazard warning switch at all times from fuse F-3. When the hazard warning switch is in the HAZARD position, battery voltage is applied to the flasher unit. Its output is pulsing voltage which is directed to the hazard warning switch and causes the turn lights and turn indicator lights to flash in both directions.

THIS PAGE INTENTIONALLY LEFT BLANK

BRAKE LIGHTS

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

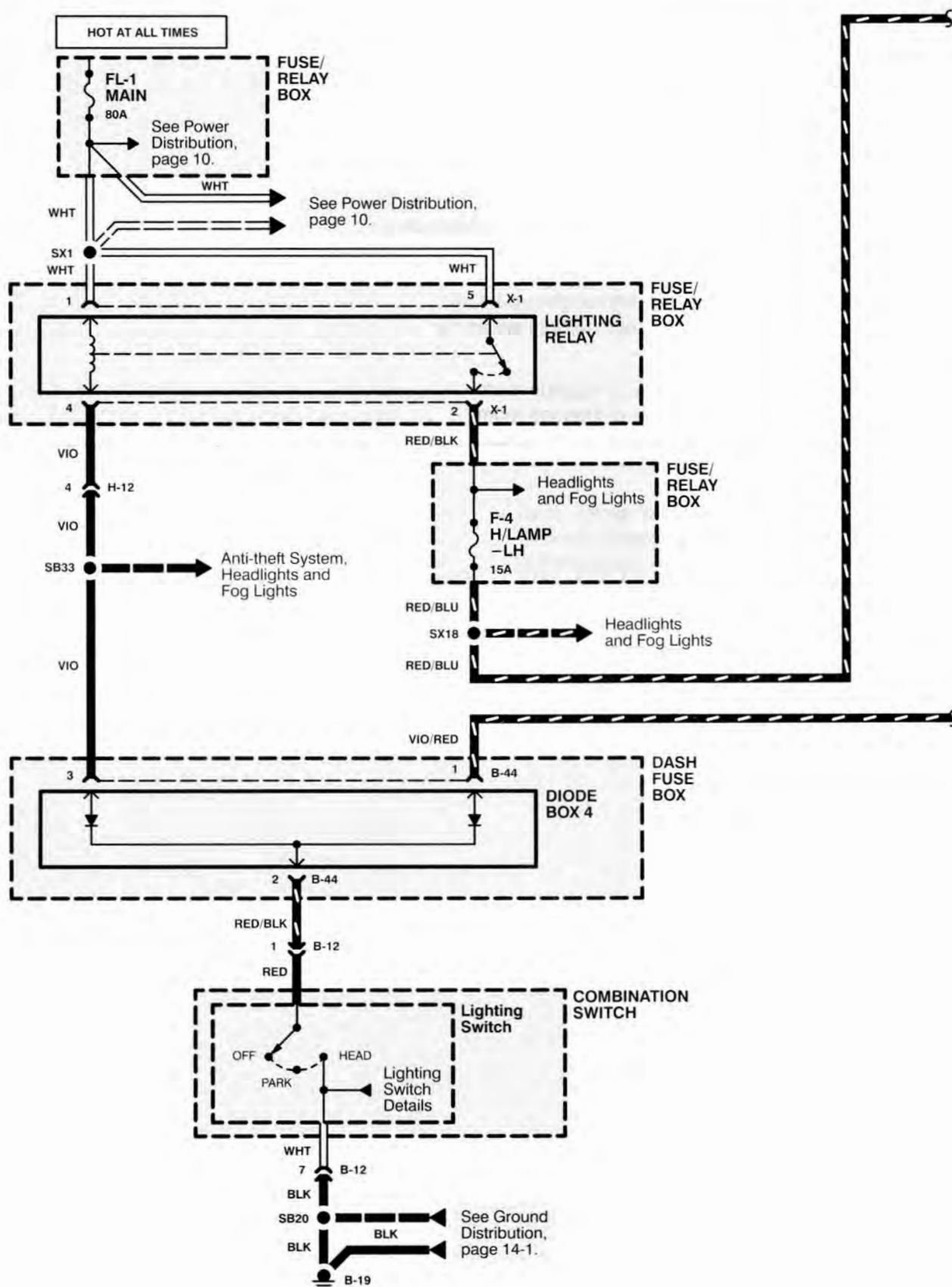
<u>Component</u>	<u>Photo No.</u>
Brake Switch	Below I/P, on brake pedal support 74
Dash Fuse Box	Behind left dash side trim panel 55
Trailer Lighting Connector	
H-44 (6-WHT)	Below left rear corner of vehicle, behind grommet 102
<u>Connector</u>	
G-9 (2-WHT/BLK)	Inside top center of left tailgate door 97
H-32 (22-WHT)	Below left front seat 105
H-37 (4-GRY)	Left rear of luggage room 89
R-7 (6-WHT/BLK)	Behind left taillight assembly 103
R-9 (6-WHT/BLK)	Behind right taillight assembly 103
<u>Ground</u>	
R-3	Left side of luggage room 90
R-4	Left side of luggage room 90

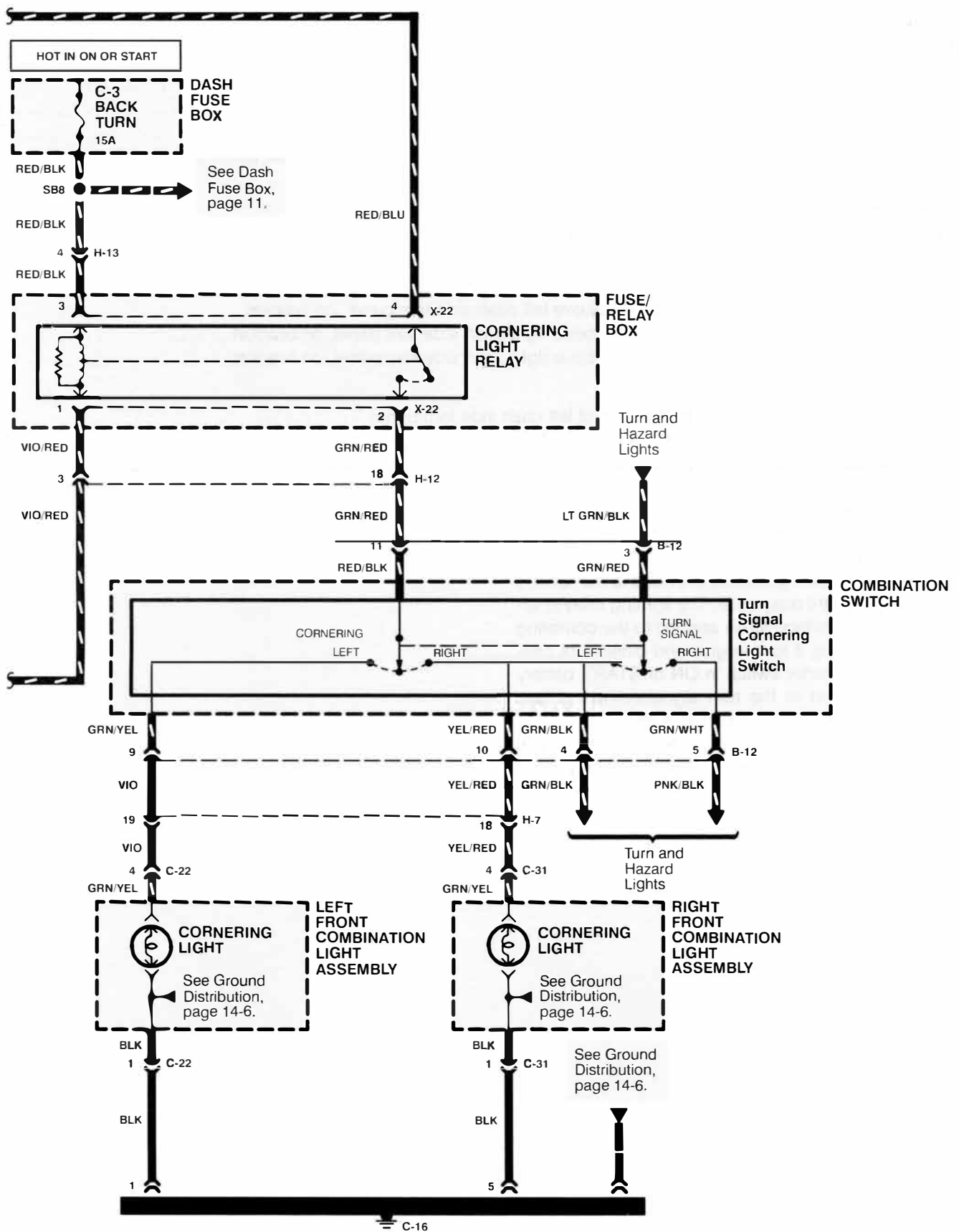
Circuit Operation

Battery voltage is applied to the brake switch at all times from fuse C-14. With the brake pedal depressed, the switch is closed and battery voltage is applied to the brake lights and the brake lights go on.

CORNERING LIGHTS

Circuit Schematic





CORNERING LIGHTS

Component Location Index

(Refer to Section 201 for photographs.)

Component		Photo No.
Cornering Light Relay	In fuse/relay box	35
Dash Fuse Box	Behind left dash side trim panel	55
Diode Box 4	In dash fuse box	55
Fuse/Relay Box	Right side of engine compartment, on inner fender panel	41
Lighting Relay	In fuse/relay box	35
Connector		
B-12 (16-WHT)	Below I/P, right of steering column	58
C-22 (4-GRY)	Behind left front combination light assembly	3
C-31 (4-GRY)	Behind right front combination light assembly	3
H-7 (20-BRN/WHT)	Below I/P, above left dash side trim panel, on bracket	69
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket	100
H-13 (6-GRY)	Below I/P, above right dash side trim panel, on bracket	100
Ground		
B-19	Behind top of left dash side trim panel	71
C-16	Left rear corner of engine compartment, on inner fender panel	39

Circuit Operation

Battery voltage is applied to the lighting relay at all times from fuse FL-1 MAIN. When the lighting switch is in the HEAD position, ground is provided to the lighting and cornering light relay coils. The lighting relay energizes, allowing voltage to be applied to the cornering relay coil, causing it to energize and closing its contacts. With the starter switch in ON or START, battery voltage is applied to the turn signal/cornering light switch through the closed contacts of the cornering relay. When the turn signal/cornering light switch is in the LEFT or RIGHT position, voltage is directed to the appropriate cornering light and the light comes on until the turn signal/cornering light switch is cancelled.

THIS PAGE INTENTIONALLY LEFT BLANK

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Automatic Transmission	
Mode Switch	Beneath vehicle, on left side of transmission 43
Back-Up Light Switch	Beneath vehicle, on right side of transmission 118
Dash Fuse Box	Behind left dash side trim panel 55
Connector	
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-11 (16-BLK)	Left front of engine compartment 27
H-32 (22-WHT)	Below left front seat 105
M-8 (2-BLU/GRY)	Beneath center of vehicle, top right side of transmission 118
M-25 (8-BLK)	On left side of transmission 52
R-7 (6-WHT/BLK)	Behind left taillight assembly 103
R-9 (6-WHT/BLK)	Behind right taillight assembly 103
Ground	
R-4	Left side of luggage room 90

Circuit Operation

Automatic

With the starter switch in ON or START, battery voltage is applied to fuse C-3 and to the automatic transmission mode switch. With the transmission in reverse, the automatic transmission mode switch closes and battery voltage is applied to the back-up lights and the back-up lights go on.

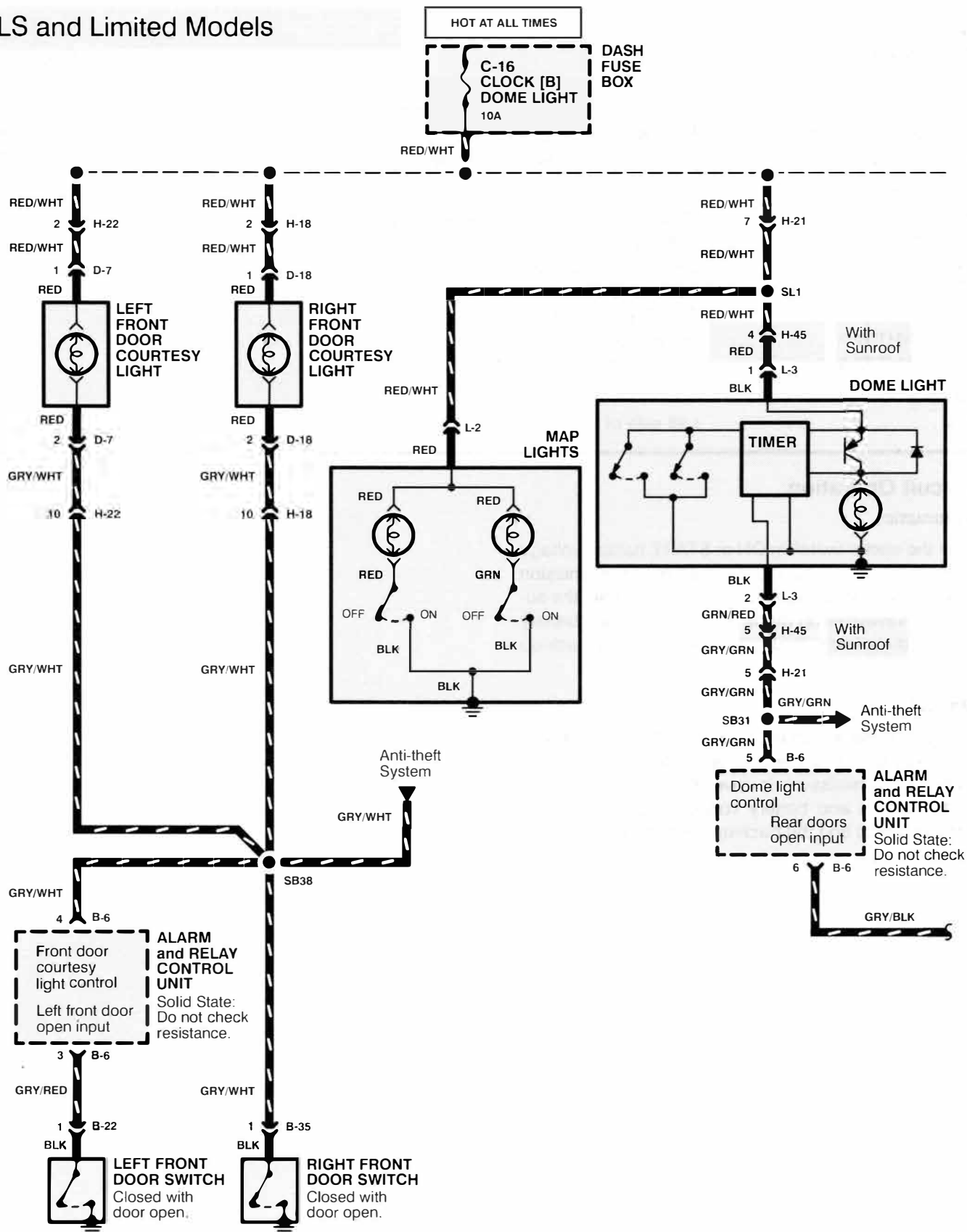
Manual

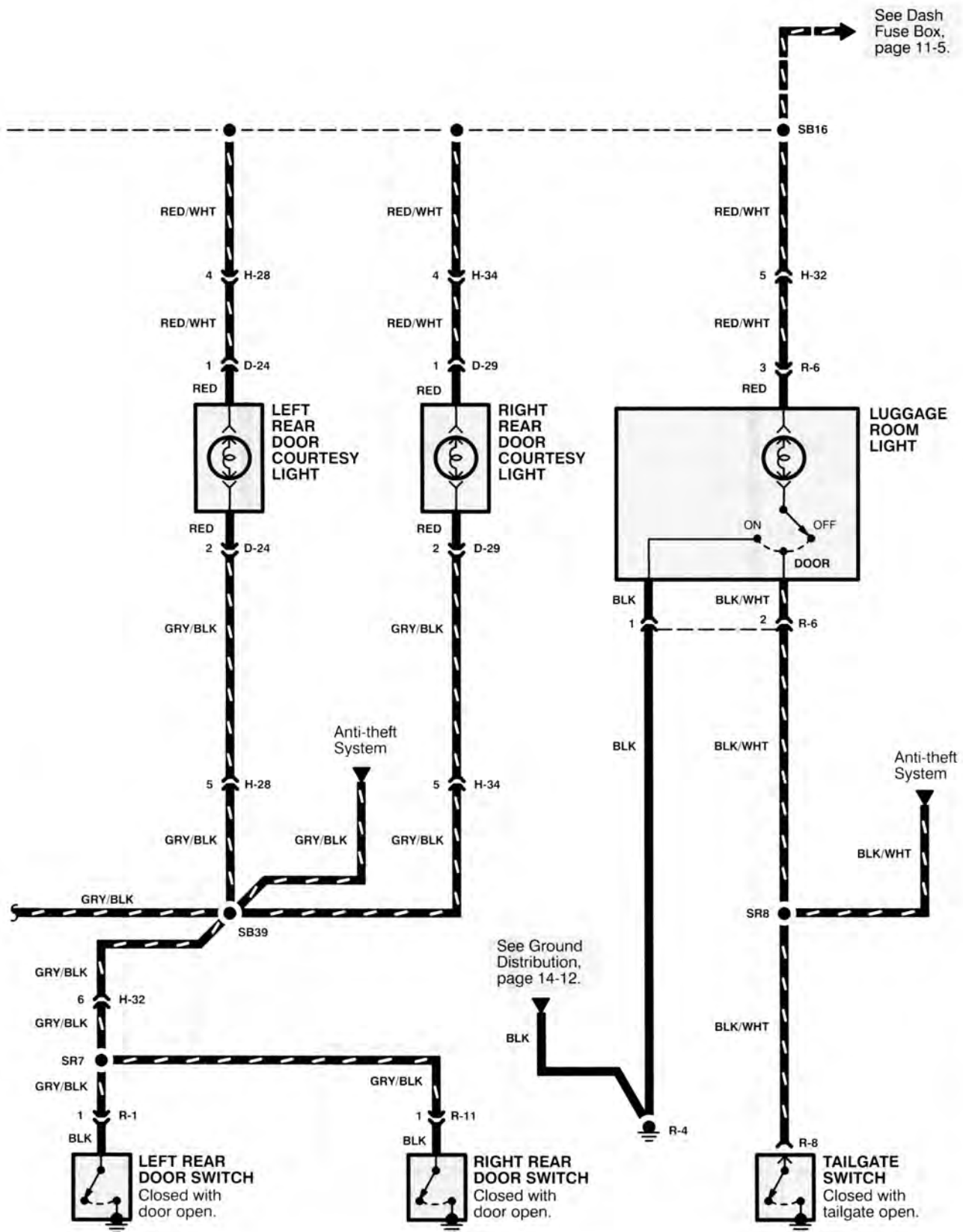
With the starter switch in ON or START, battery voltage is applied to fuse C-3 and to the back-up light switch. With the transmission in reverse, the back-up light switch closes and battery voltage is applied to the back-up lights and the back-up lights go on.

DOME, LUGGAGE ROOM, COURTESY, AND MAP LIGHTS

Circuit Schematic

LS and Limited Models

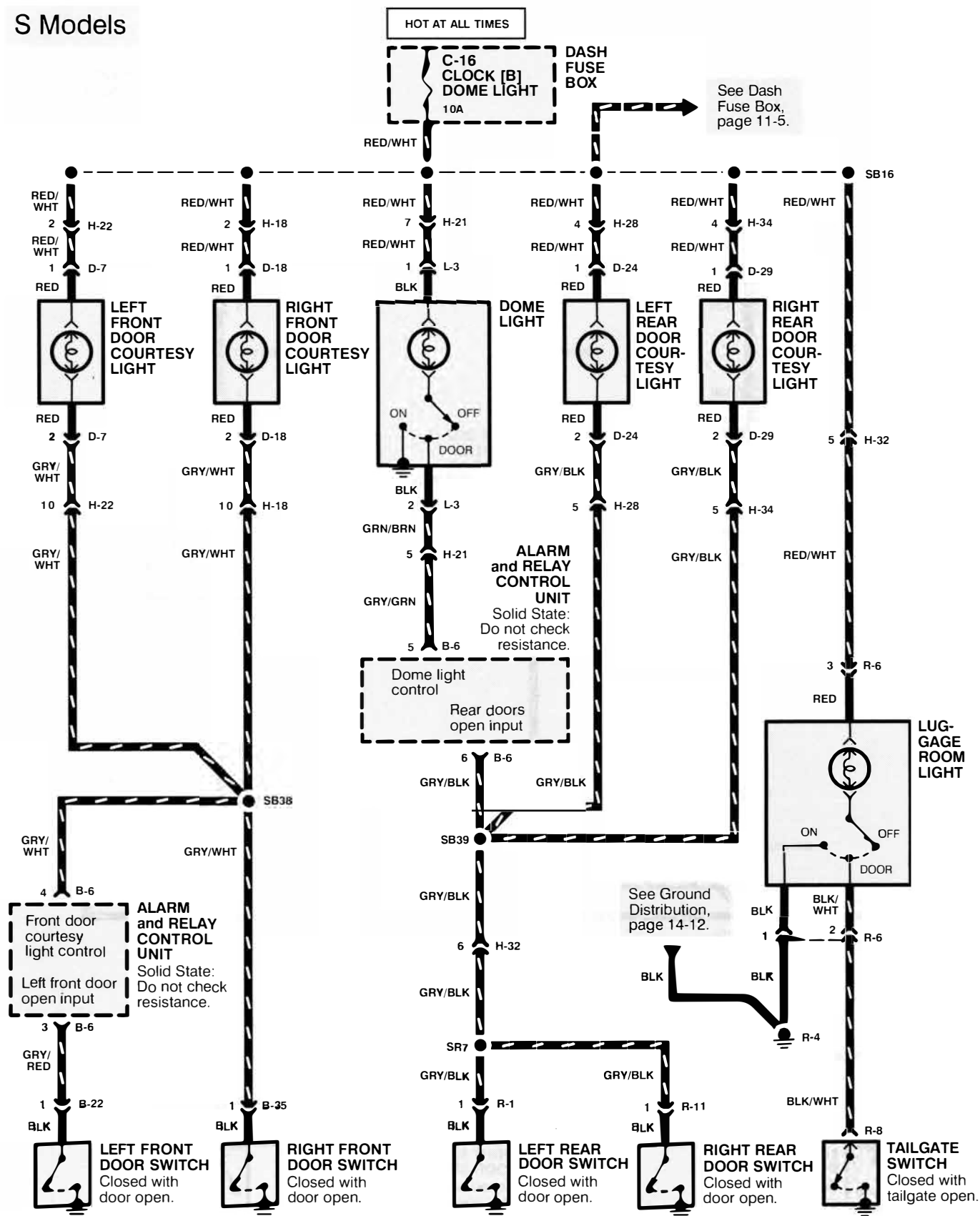




DOMES, LUGGAGE ROOM, AND COURTESY LIGHTS

Circuit Schematic

S Models



Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Alarm and Relay Control	
Unit	Behind right kick panel 116
Dash Fuse Box	Behind left dash side trim panel 55
Left Front Door Switch	Near left front door striker 75
Left Rear Door Switch	Near left rear door striker 82
Right Front Door Switch	Near right front door striker 75
Right Rear Door Switch	Near right rear door striker 82
Tailgate Switch	Center rear of luggage room floor 94
Connector	
B-22 (2-WHT)	In left center pillar, behind door switch
B-35 (2-WHT)	In right center pillar, behind door switch
D-7 (2-BLK)	Inside left front door, behind trim pad 77
D-18 (2-BLK)	Inside right front door, behind trim pad 77
D-24 (2-BLK)	Inside rear of left rear door, behind door courtesy light 83
D-29 (2-BLK)	Inside rear of right rear door, behind door courtesy light 83
H-18 (18-WHT)	Behind right dash side trim panel, in access hole 54
H-21 (8-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-22 (18-WHT)	Behind left dash side trim panel, in access hole 54
H-28 (6-WHT)	In left center pillar 81
H-32 (22-WHT)	Below left front seat 105
H-34 (6-WHT)	In right center pillar 81
H-45 (6-BLK/WHT)	Center of roof, above map lights 85
L-2 (1-WHT)	Center front of roof, above map lights 85
L-3 (2-WHT)	Center of roof, above dome light 86
R-1 (2-WHT)	Left front of luggage room, behind grommet 90
R-6 (3-WHT)	Center rear of roof 87
R-11 (2-WHT)	Right front of luggage room, behind grommet 90
Ground	
R-4	Left side of luggage room 90

DOME, LUGGAGE ROOM, COURTESY, AND MAP LIGHTS

Circuit Operation

Battery voltage is applied at all times to fuse C-16 and to the dome, map, courtesy, and luggage room lights.

Dome Light (S Model)

With a door open and the dome light switch in the DOOR position, a ground path is provided by the closed door switch and the dome light goes on. With the doors closed, the dome light can be turned on by turning the dome light switch to ON.

Dome Light (LS and Limited Models)

With a door open, a ground path is provided by the closed door switch and the dome light goes on. When the open door is closed, the door switch opens to ground removing the ground signal to the timer. The dome light begins to dim approximately 3 seconds after closing the door. With the doors closed, the dome light can be turned on by pushing the indicated portion of the light lens. It goes off when pushed again, regardless of the door position.

Courtesy Lights

With a front door open, a ground path is provided by the closed front door switch and the front courtesy lights go on. With a rear door open, a ground path is provided by the closed rear door switch and the rear courtesy lights go on. Opening a front door does not turn on the rear courtesy lights and opening a rear door does not turn on the front courtesy lights.

Luggage Room Lights

With the tailgate open and the luggage room light switch in the DOOR position, a ground path is provided by the closed tailgate switch and the luggage room light goes on. With the tailgate closed, the luggage room light can be turned on by turning the luggage room light switch to ON.

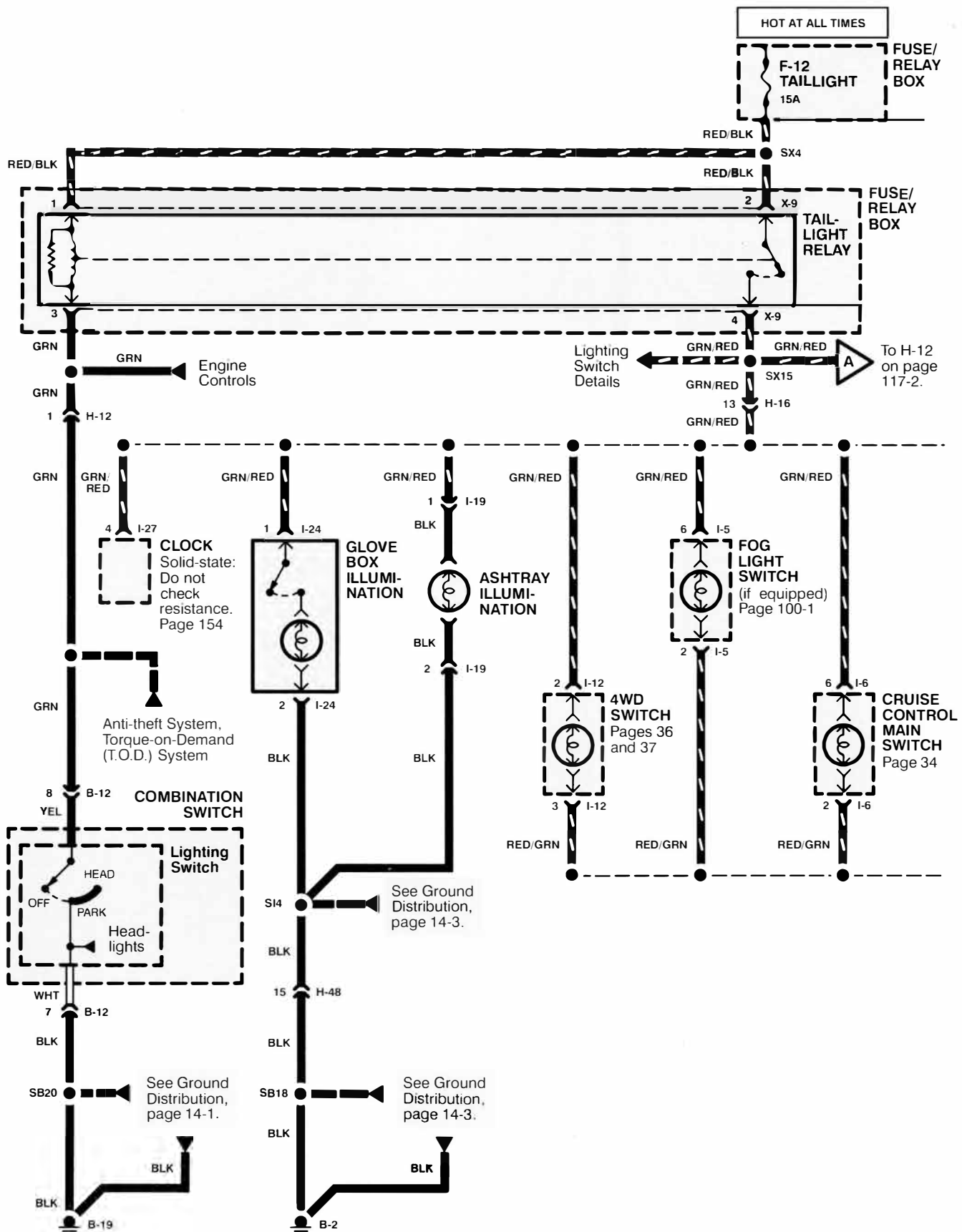
Map Lights

When either the left or right map light switch is depressed, battery voltage is applied to that particular light and the map light goes on.

THIS PAGE INTENTIONALLY LEFT BLANK

DASH AND CONSOLE LIGHTS

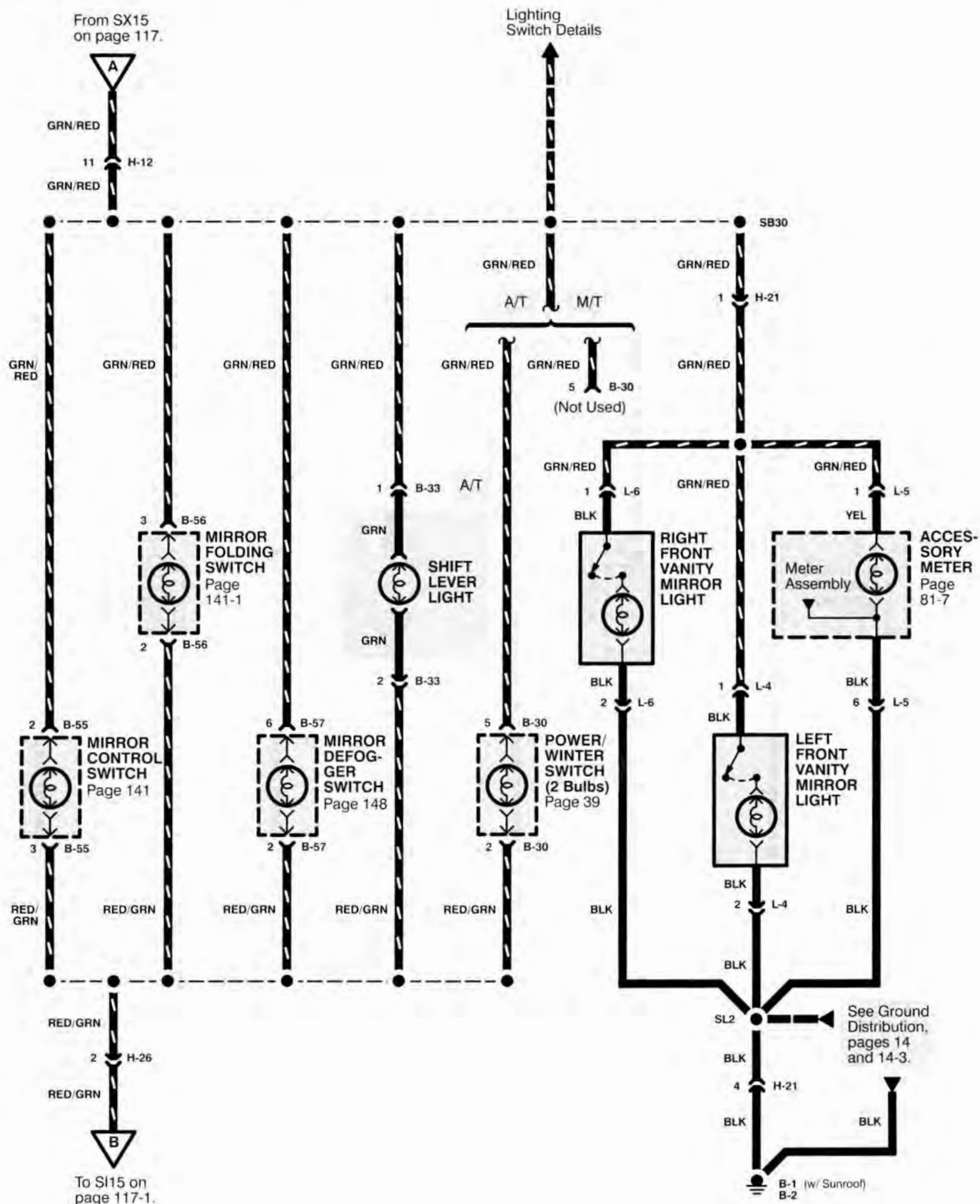
Circuit Schematic





DASH AND CONSOLE LIGHTS

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

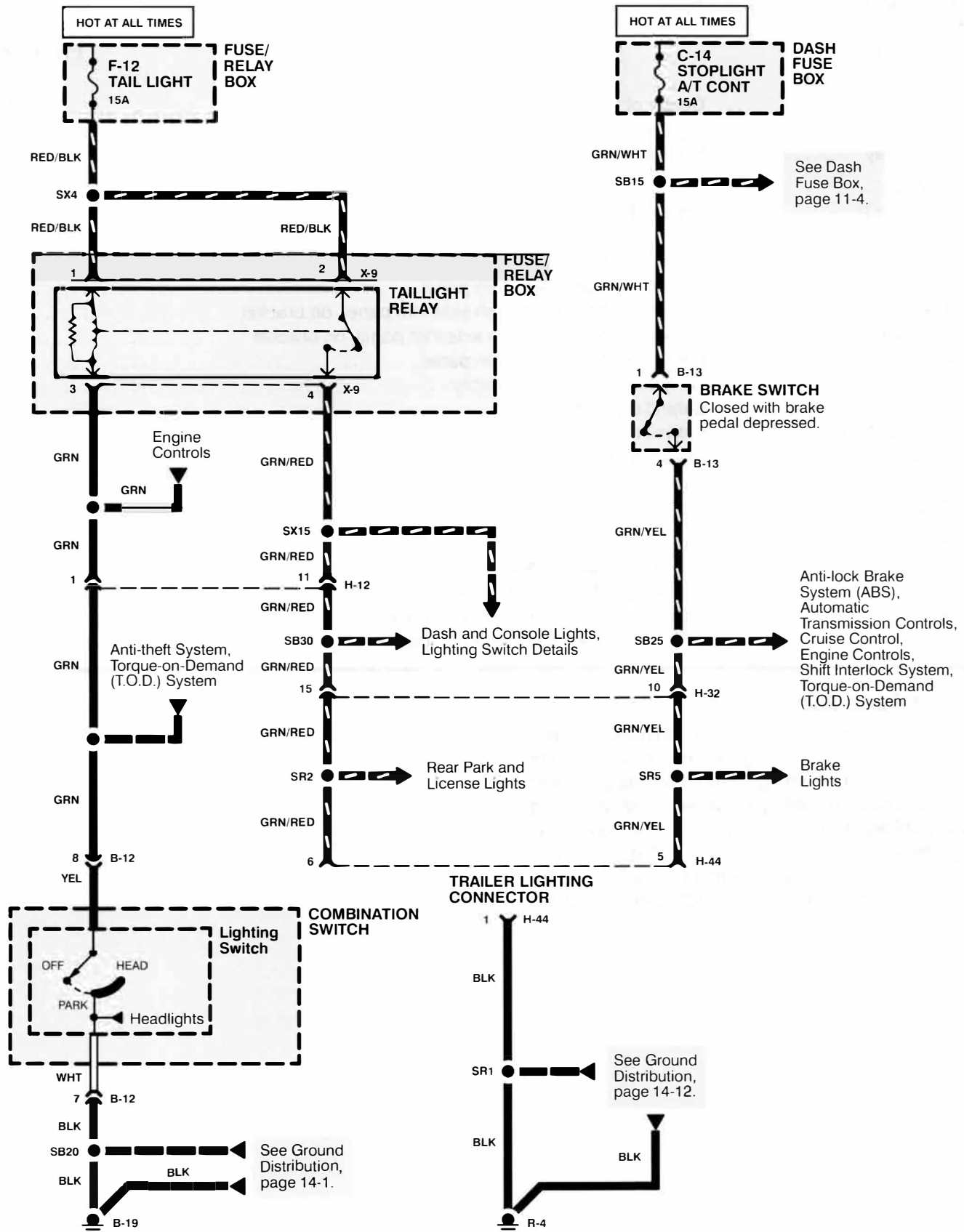
Component	Photo No.
Automatic Heater-A/C	
Control Unit	Center of I/P 64
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Taillight Relay	In fuse/relay box 35
Connector	
B-12 (16-WHT)	Below I/P, right of steering column 58
B-33 (2-WHT/BLK)	Below rear of front console 66
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-16 (22-WHT)	Behind right dash side trim panel 120
H-21 (8-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-26 (20-WHT)	Below I/P, above left dash side trim panel, on bracket 71
H-48 (16-BLK)	Behind right dash side trim panel 120
I-9 (30-GRN)	On left top of meter assembly 53
I-19 (2-WHT)	Behind cigarette lighter 135
I-20 (2-BLU/WHT)	Behind cigarette lighter 135
L-4 (2-BLK)	Left front of roof 49
L-5 (6-WHT)	Above multi-meter 26
L-6 (2-BLK)	Right front of roof 49
Ground	
B-1	Above right dash side trim panel 116
B-2	Above right dash side trim panel 116
B-18	Behind top of left dash side trim panel 71
B-19	Behind top of left dash side trim panel 71

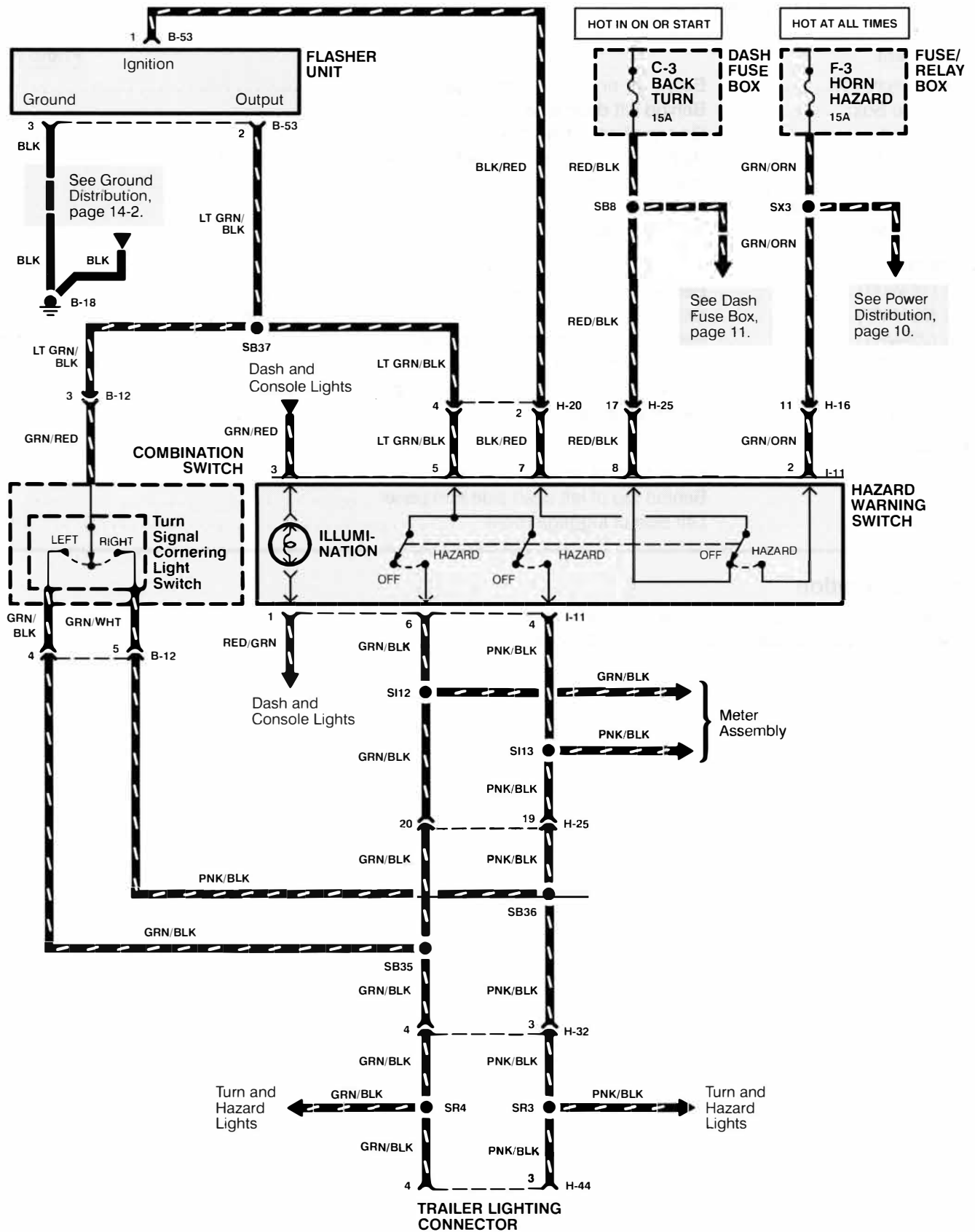
Circuit Operation

Fuse F-12 applies battery voltage at all times to the tail-light relay. When the lighting switch is in the HEAD or PARK position, the lighting switch provides ground to the taillight relay. The taillight relay energizes providing battery voltage to the dash and console lights. The brightness of the lights is controlled by the illumination controller. The illumination controller is a solid-state device which controls the ground path provided to the lights.

TRAILER ADAPTER

Circuit Schematic





TRAILER ADAPTER

Component Location Index

(Refer to Section 201 for photographs.)

Component		Photo No.
Brake Switch	Below I/P, on brake pedal support	74
Dash Fuse Box	Behind left dash side trim panel	55
Flasher Unit	On top of dash fuse box	68
Fuse/Relay Box	Right side of engine compartment, on inner fender panel	41
Taillight Relay	In fuse/relay box	35
Trailer Lighting Connector		
H-44 (6-WHT)	Below left rear corner of vehicle, behind grommet	102
Connector		
B-12 (16-WHT)	Below I/P, right of steering column	58
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket	100
H-16 (22-WHT)	Behind right dash side trim panel	120
H-20 (4-WHT)	Behind right dash side trim panel	120
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket	71
H-32 (22-WHT)	Below left front seat	105
Ground		
B-18	Behind top of left dash side trim panel	71
B-19	Behind top of left dash side trim panel	71
R-4	Left side of luggage room	90

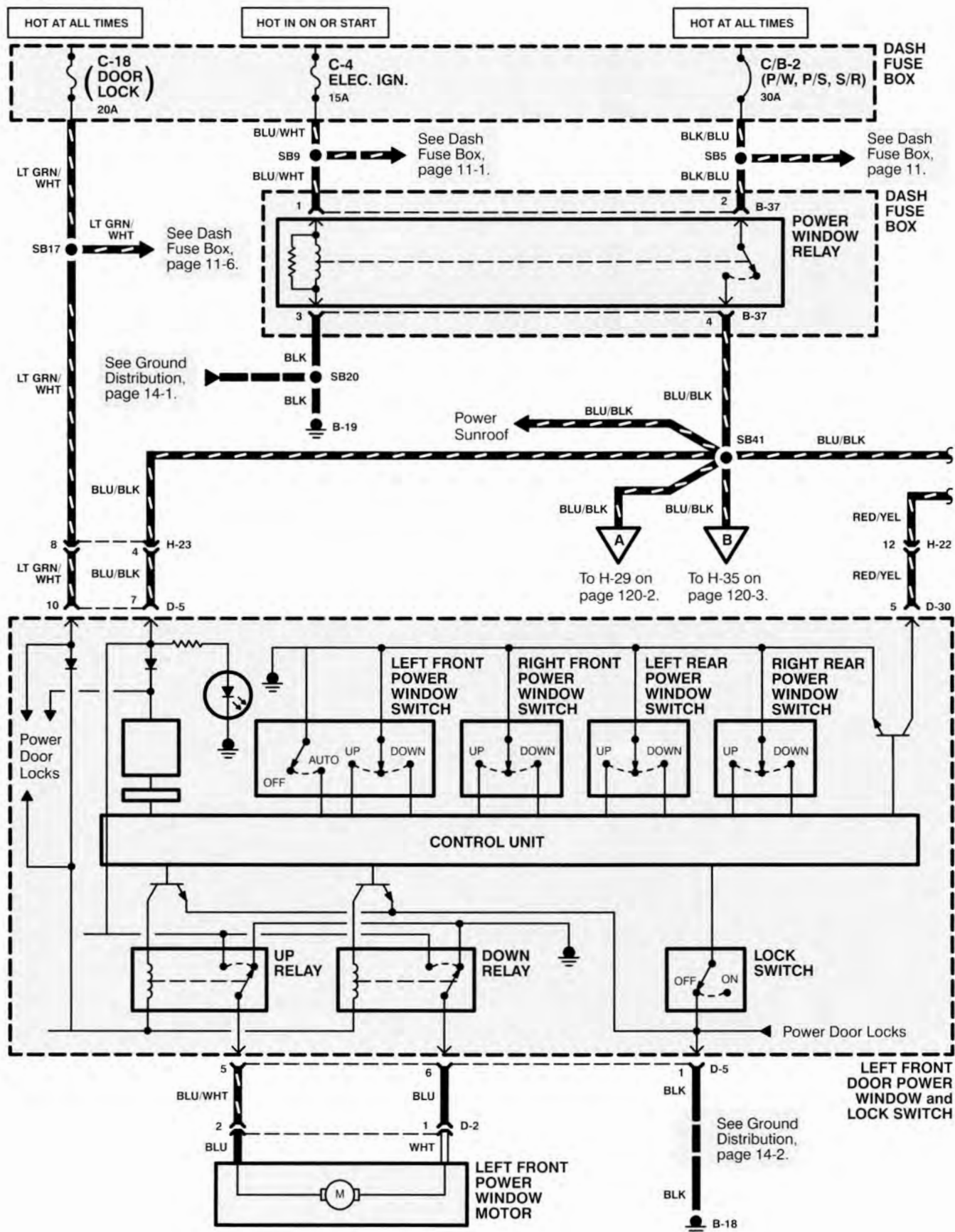
Circuit Operation

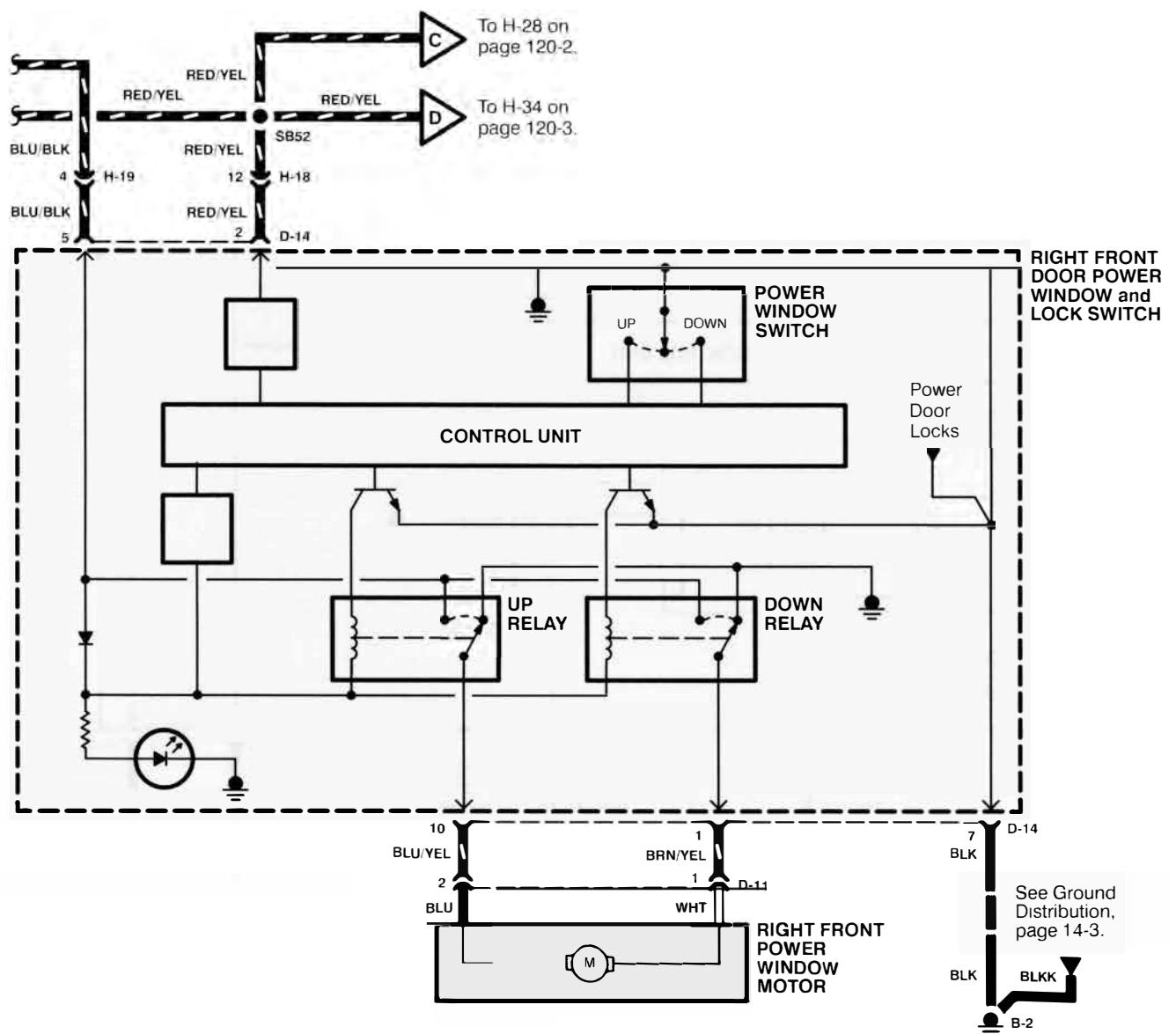
The trailer connector is an extension of the main wiring harness. See corresponding exterior lights cell for circuit operation.

THIS PAGE INTENTIONALLY LEFT BLANK

POWER WINDOWS

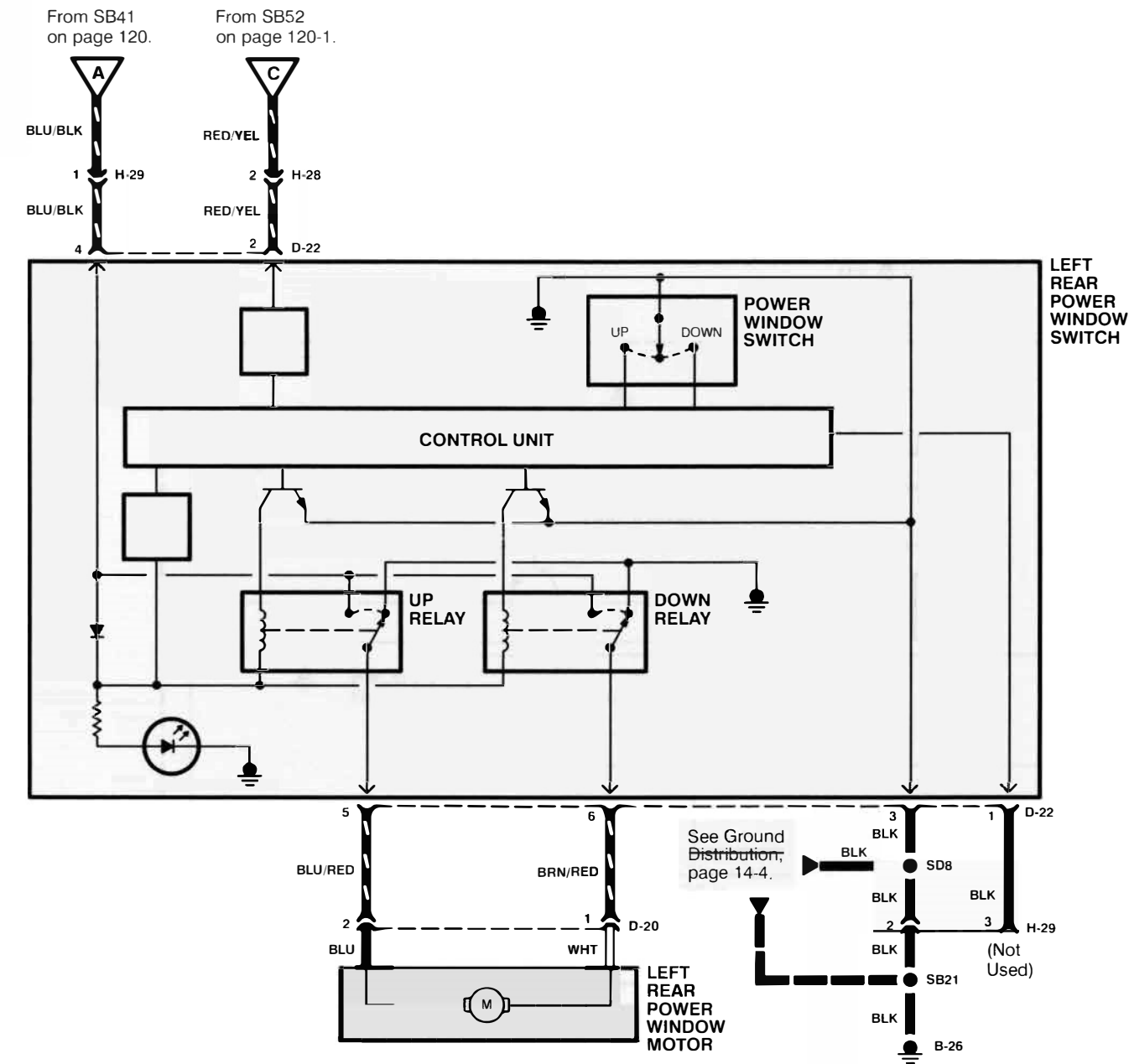
Circuit Schematic





POWER WINDOWS

Circuit Schematic



POWER WINDOWS

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Dash Fuse Box	Behind left dash side trim panel 55
Left Front Power Window	
Motor	Inside front of left front door, behind trim pad 79
Left Rear Power Window	
Motor	Inside front of left rear door, behind trim pad 84
Power Window Relay	In dash fuse box 56
Right Front Power Window	
Motor	Inside front of right front door, behind trim pad 79
Right Rear Power Window	
Motor	Inside front of right rear door, behind trim pad 84
Connector	
D-2 (2-BLK)	Inside front of left front door, behind trim pad 79
D-11 (2-BLK)	Inside front of right front door, behind trim pad 79
D-20 (2-BLK)	Inside front of left rear door, behind trim pad 84
D-25 (2-BLK)	Inside front of right rear door, behind trim panel 84
H-18 (18-WHT)	Behind right dash side trim panel, in access hole 54
H-19 (8-BLK)	Behind right dash side trim panel, in access hole 54
H-22 (18-WHT)	Behind left dash side trim panel, in access hole 54
H-23 (8-BLK)	Behind left dash side trim panel, in access hole 54
H-28 (6-WHT)	In left center pillar 81
H-29 (3-BLU)	In left center pillar 81
H-34 (6-WHT)	In right center pillar 81
H-35 (3-BLU)	In right center pillar 81
Ground	
B-2	Above right dash side trim panel 116
B-18	Behind top of left dash side trim panel 71
B-19	Behind top of left dash side trim panel 71
B-26	Below rear of center console 67

POWER WINDOWS

Circuit Operation

Fuse C-18 applies battery voltage at all times to the left front door power window and lock switch. The circuit breaker C/B-2 applies battery voltage at all times to the power window relay. With the starter switch in ON or START, fuse C-4 applies battery voltage to the power window relay. The power window relay energizes and allows battery voltage from the circuit breaker to all the door power window switches.

Left Front Window

When the left front door power window and lock switch is moved to UP, a signal is sent to the control unit. The control unit grounds the coil of the up relay. The contacts of the relay close, and voltage is applied to the left front power window motor. The motor's ground path is through the open contacts of the down relay. The motor drives the window up as long as the switch is held. When the switch is moved to DOWN, a signal is sent to the control unit. The control unit grounds the coil of the down relay. The contacts of the relay close, and voltage is applied to the motor. The motor's ground path is through the open contacts of the up relay. The motor drives the window down as long as the switch is held.

Auto Down

When the left front power switch is moved to AUTO, a signal is sent to the control unit. The control unit grounds the coil of the down relay. The contacts of the relay close, and voltage is applied to the left front power window motor. The motor's ground path is through the open contacts of the down relay. The control unit keeps the relay energized until the motor drives the window to the fully open position.

Passenger's Window

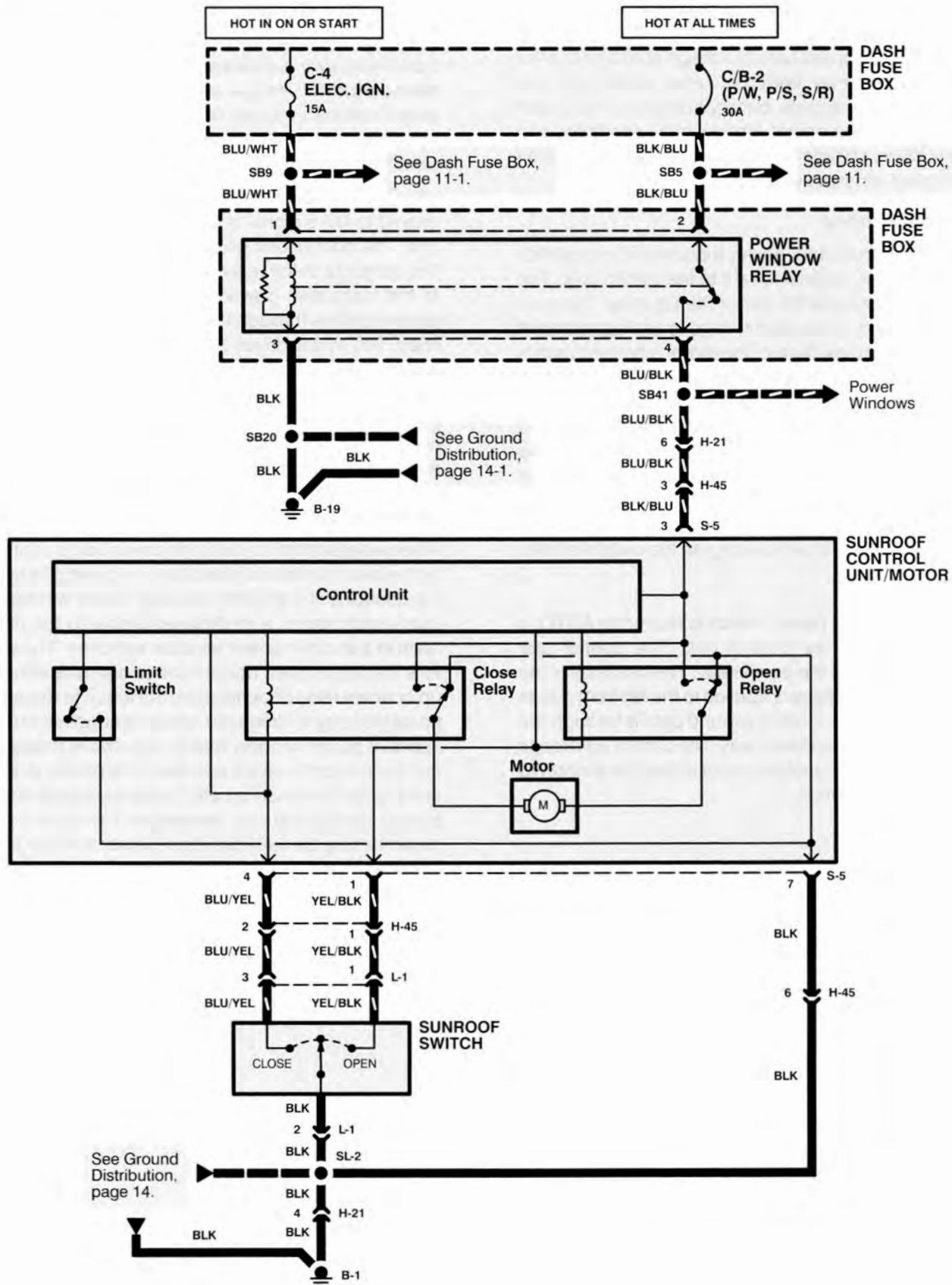
The passenger windows can be operated from the left front door power window and lock switch or the respective door power window switch. The passenger's door power window switches can only operate the windows when the lock switch in the left front power window switch is in the OFF position.

When a passenger's door power window switch is moved to UP, a signal is sent to the respective control unit. The control unit grounds the coil of the up relay. The contacts of the relay close, and voltage is applied to the respective power window motor. The motor's ground path is through the open contacts of the down relay. The motor drives the window up as long as the switch is held. When the switch is moved to DOWN, a signal is sent to the control unit. The control unit grounds the coil of the down relay. The contacts of the relay close, and voltage is applied to the motor. The motor's ground path is through the open contacts of the up relay. The motor drives the window down as long as the switch is held.

When a passenger's power window is being controlled by the switch in the left front door power window switch, the control unit in the left front door power window and lock switch sends a multiplexed signal to the control units in the other power window switches. The signal tells the appropriate control unit to energize either the up or down relay depending on the function requested. Once the relay is energized, power is supplied to the respective power window motor (see above paragraph) and the motor drives the window in the proper direction as long as the switch is held. Since the signal is multiplexed, more than one passenger's window can be controlled by the left front door power window switch simultaneously.

POWER SUNROOF

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

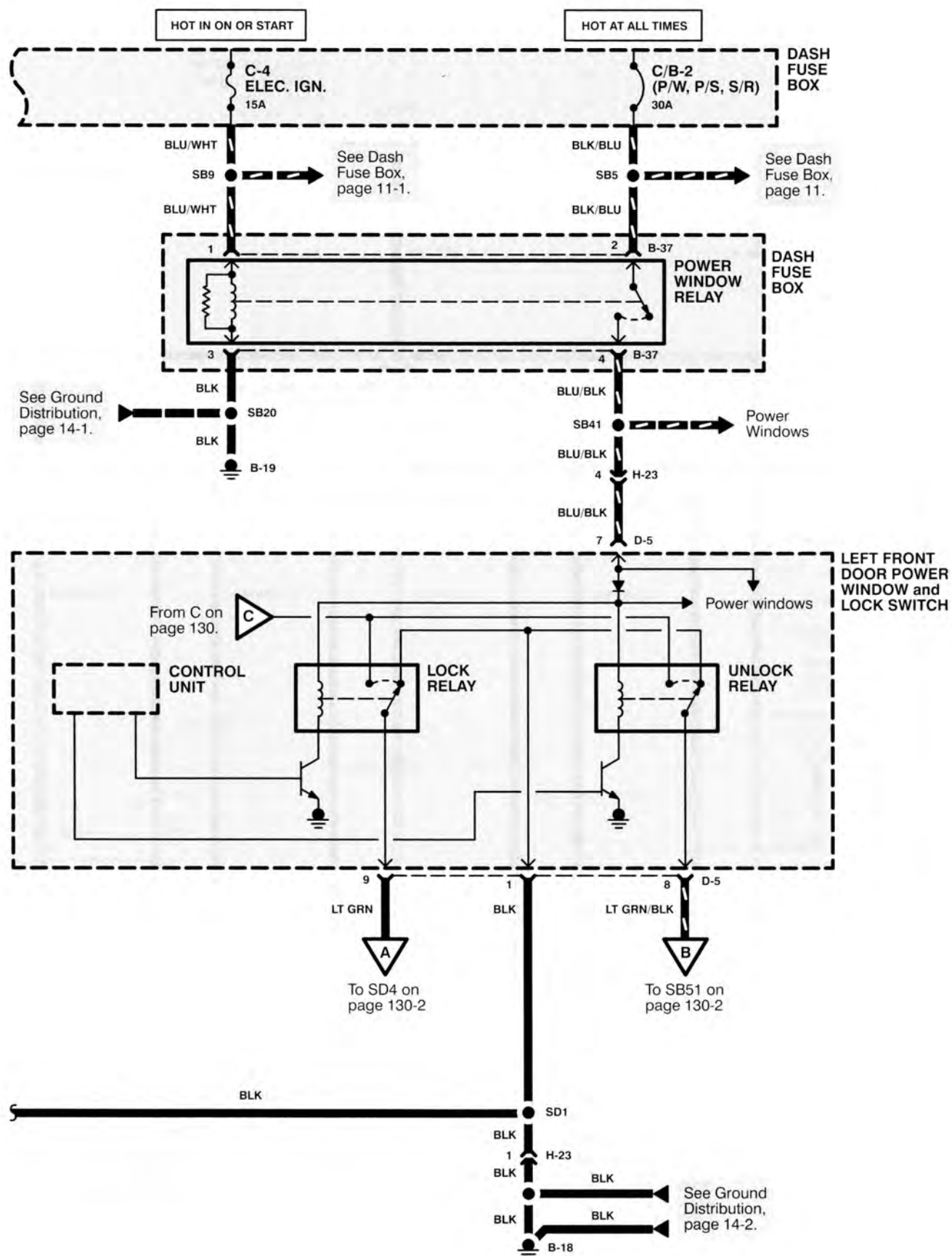
Component	Photo No.
Dash Fuse Box	Behind left dash side trim panel 55
Power Window Relay	In dash fuse box 56
Sunroof Control Unit/Motor	Rear underside of roof 88
Connector	
H-21 (8-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-45 (6-BLK/WHT)	Center of roof, above map lights 85
L-1 (3-WHT)	Center of roof, above map lights 85
Ground	
B-1	Above right dash side trim panel 116
B-19	Behind top of left dash side trim panel 71

Circuit Operation

When the ignition switch is in ON or START, the power window relay is energized and applies battery voltage to the sunroof control unit/motor. When you hold the sunroof switch in the OPEN position, the “open” relay energizes, supplying battery voltage to the sunroof motor, and the sunroof opens to the partial open position (least wind noise). At the moment the sunroof reaches that position, the limit switch sends a signal to the sunroof control unit, and the control unit stops the roof. After you release the sunroof switch and hold it in the OPEN position again, the sunroof motor opens the roof the rest of the way, until it reaches its mechanical limit. When you hold the switch in the CLOSE position, the “close” relay energizes, supplying battery voltage to the sunroof motor, and the roof closes to the partial close position (safety stop). At the moment the sunroof reaches that position, the limit switch sends a signal to the sunroof control unit, and the control unit stops the roof. After you release the sunroof switch and hold it in the CLOSE position again, the sunroof motor closes the sunroof the rest of the way until it reaches its mechanical limit.

Circuit Schematic





Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

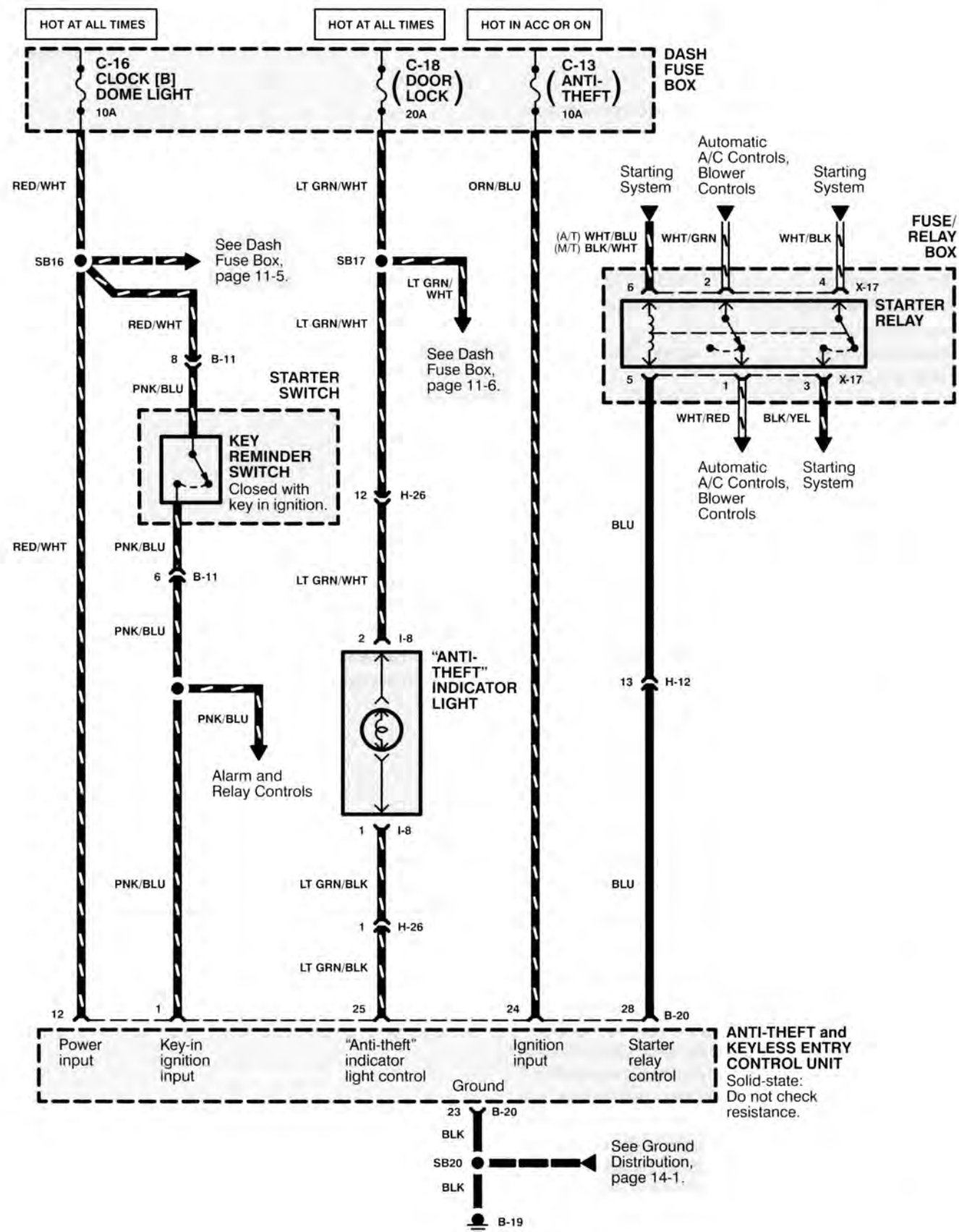
Component	Photo No.
Anti-theft and Keyless	
Entry Control Unit	Behind front console 62
Dash Fuse Box	Behind left dash side trim panel 55
Left Front Door Lock	
Actuator/Switch	Inside rear of left front door, behind trim pad 80
Left Front Door Lock	
Key Switch	Inside left front door, part of door lock assembly 80
Left Rear Door Lock	
Actuator/Switch	Inside of left rear door, behind trim pad 84
Power Window Relay	In dash fuse box 56
Right Front Door Lock	
Actuator/Switch	Inside rear of right front door, behind trim pad 80
Right Front Door Lock	
Key Switch	Inside rear of right front door, part of door lock assembly 80
Right Rear Door Lock	
Actuator/Switch	Inside of right rear door, behind trim pad 84
Tailgate Door Lock	
Actuator/Switch	Inside left tailgate door, behind trim pad 91
Connector	
D-8 (3-WHT)	Inside left front door, behind trim pad 80
D-17 (3-WHT)	Inside right front door, behind trim pad 80
H-18 (18-WHT)	Behind right dash side trim panel, in access hole 54
H-19 (8-BLK)	Behind right dash side trim panel, in access hole 54
H-22 (18-WHT)	Behind left dash side trim panel, in access hole 54
H-23 (8-BLK)	Behind left dash side trim panel, in access hole 54
H-28 (6-WHT)	In left center pillar 81
H-32 (22-WHT)	Below left front seat 105
H-34 (6-WHT)	In right center pillar 81
H-38 (10-WHT)	Left rear of luggage room 89
Ground	
B-2	Above right dash side trim panel 116
B-18	Behind top of left dash side trim panel 71
B-19	Behind top of left dash side trim panel 71

Circuit Operation

Fuse C-18 applies battery voltage at all times to the door lock control unit (in left front door power window and lock switch). If either of the front door lock key switches is turned once, only that door will be unlocked. If either of the front door lock key switches is turned twice (within 3 seconds) it sends a signal to the control unit to unlock all the doors. Locking or unlocking the doors with either door lock switch also locks or unlocks all the doors. The control unit locks or unlocks the doors by applying battery voltage and providing a ground to the door lock actuators in one direction to lock the doors and in the opposite direction to unlock the doors.

ANTI-THEFT SYSTEM

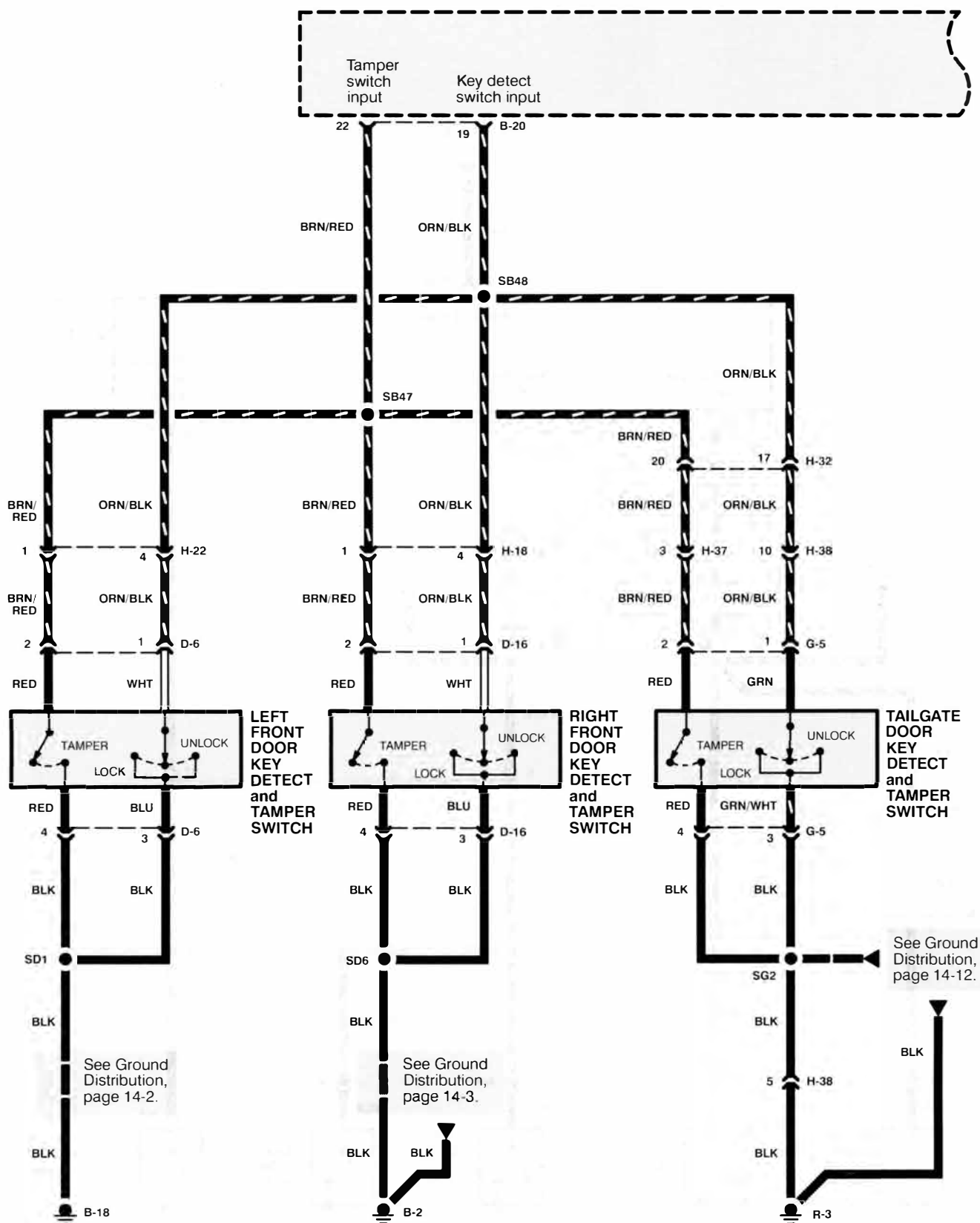
Circuit Schematic

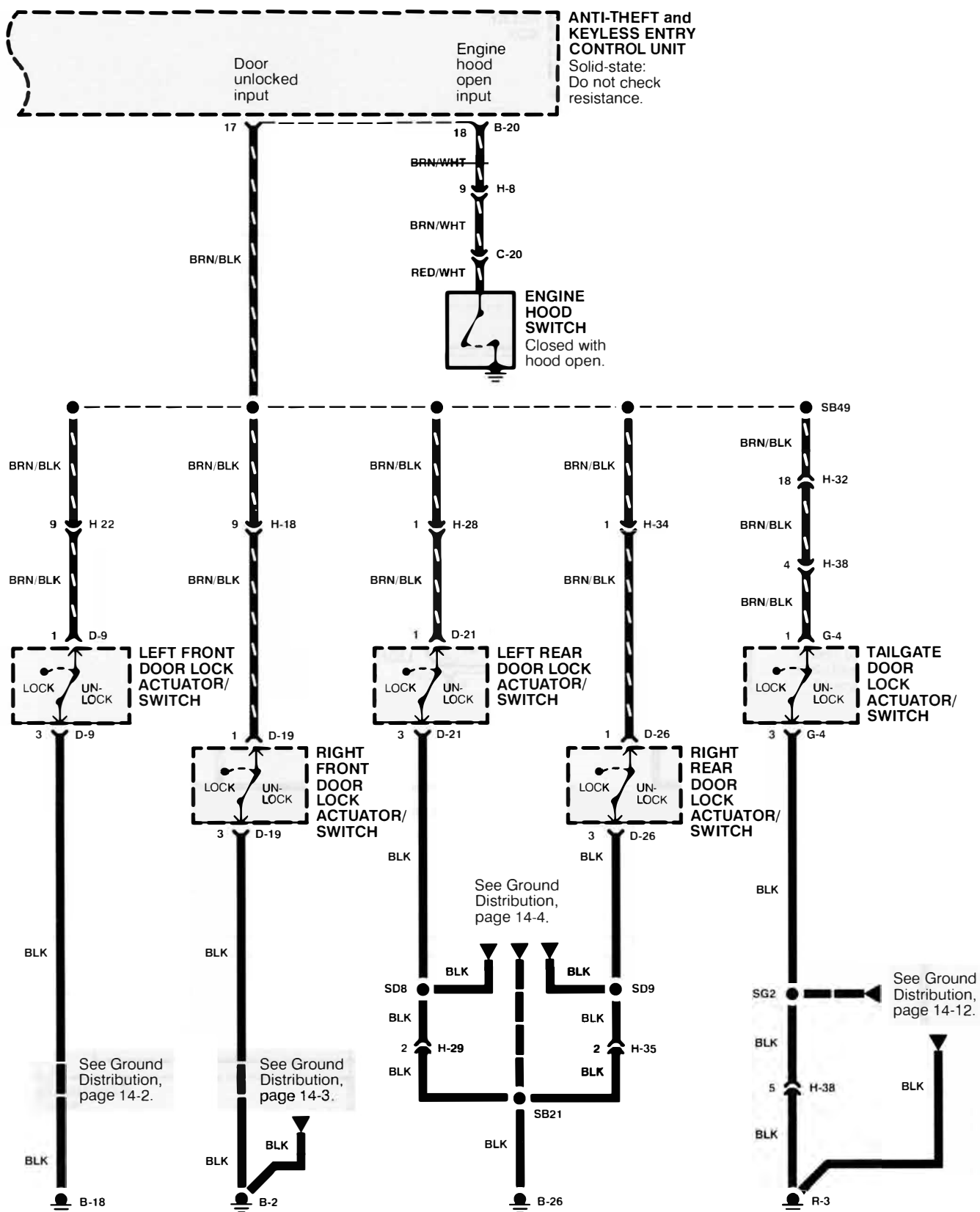




ANTI-THEFT SYSTEM

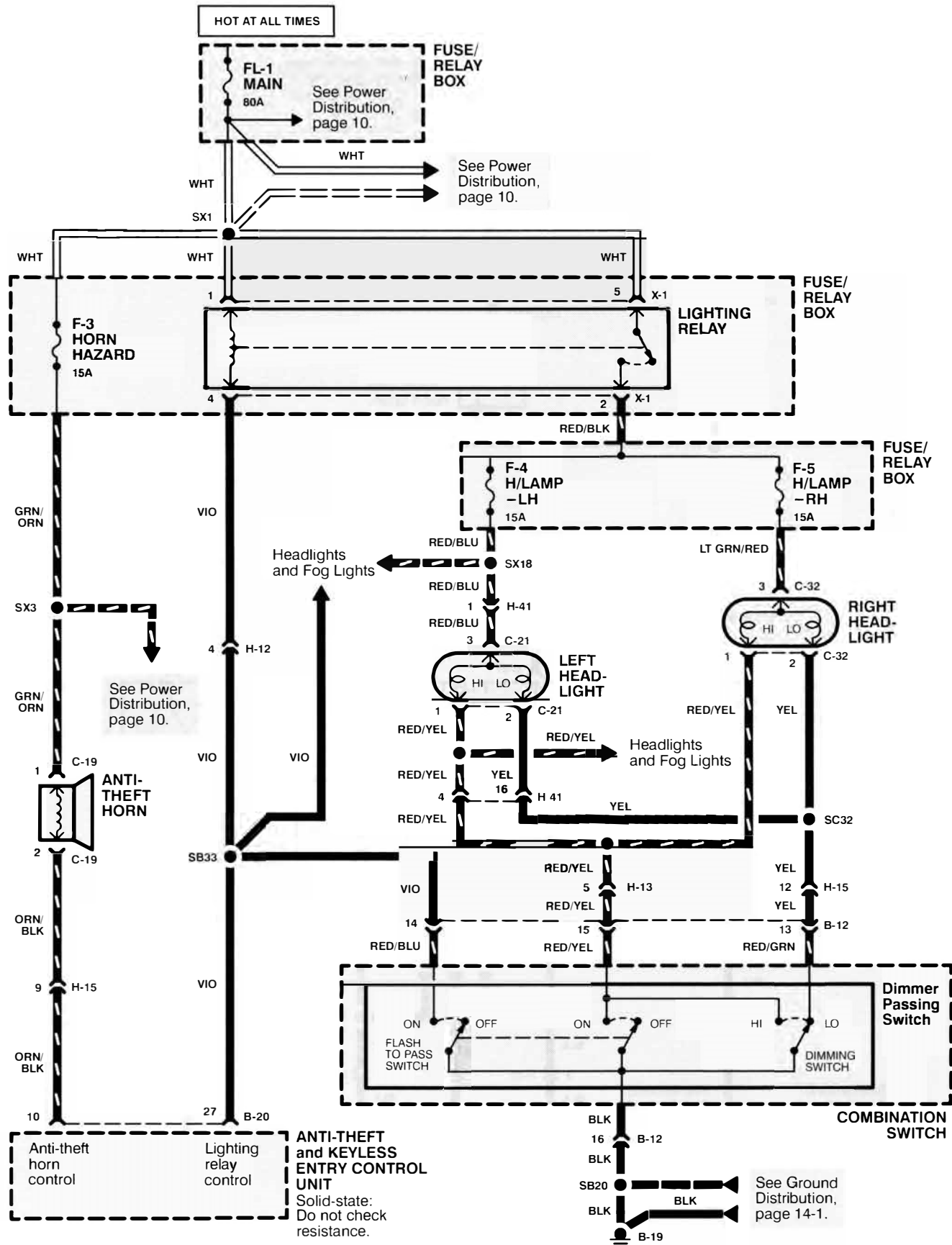
Circuit Schematic

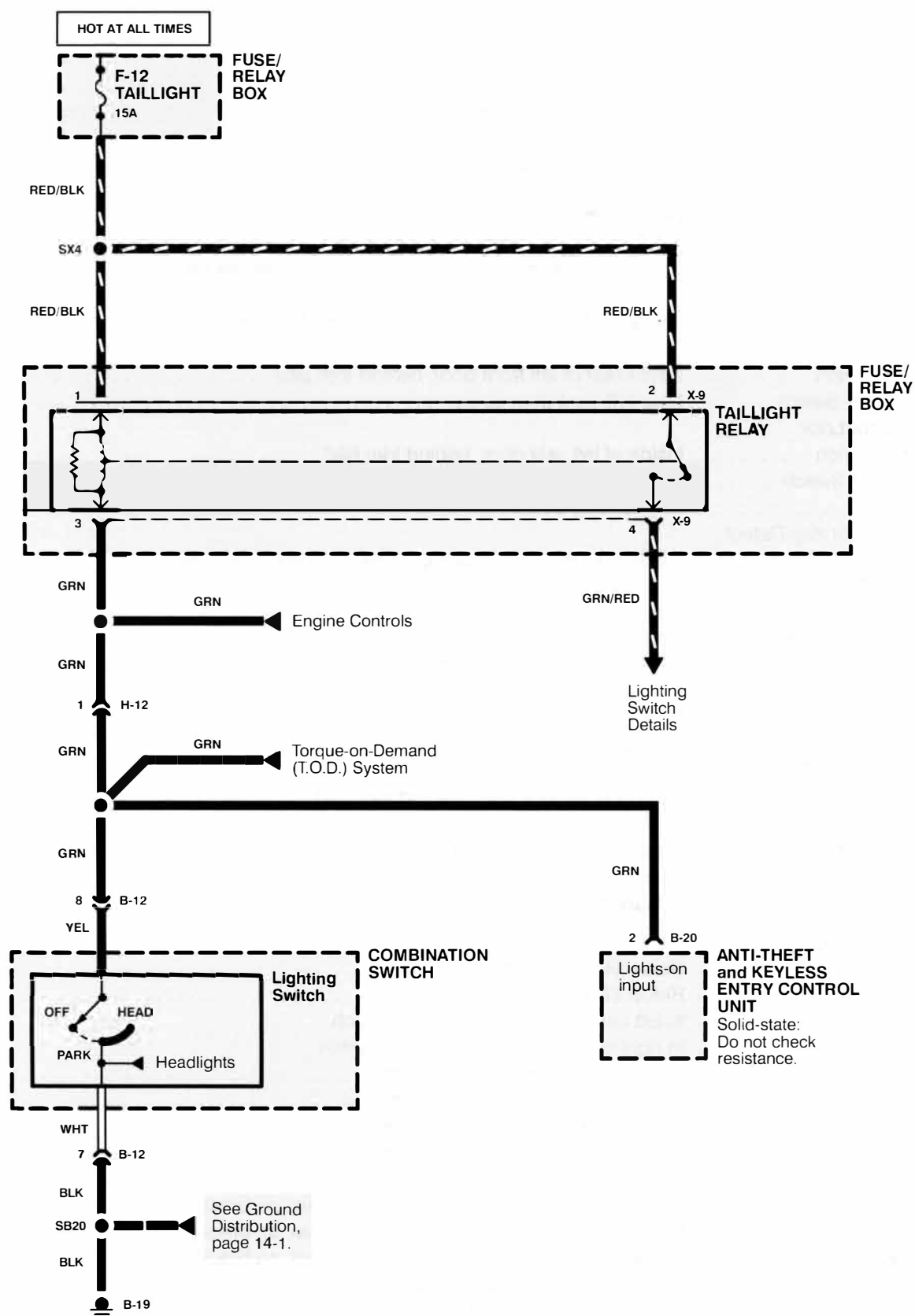




ANTI-THEFT SYSTEM

Circuit Schematic





ANTI-THEFT SYSTEM

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Alarm and Relay Control	
Unit	Behind right kick panel 116
Anti-theft and Keyless	
Entry Control Unit	Behind front console 62
Anti-theft Horn	Right rear corner of engine compartment 48
Dash Fuse Box	Behind left dash side trim panel 55
Engine Hood Switch	Left front of engine compartment 27
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 41
Left Front Door Key Detect	
and Tamper Switch	Inside left front door, part of outside handle assembly 79
Left Front Door Lock	
Actuator/Switch	Inside rear of left front door, behind trim pad 80
Left Front Door Switch	Near left front door striker 75
Left Rear Door Lock	
Actuator/Switch	Inside of left rear door, behind trim pad 84
Left Rear Door Switch	Near left rear door striker 82
Lighting Relay	In fuse/relay box 35
Right Front Door Key Detect	
and Tamper Switch	Inside right front door, part of outside handle assembly 79
Right Front Door Lock	
Actuator/Switch	Inside rear of right front door, behind trim pad 80
Right Front Door Switch	Near right front door striker 75
Right Rear Door Lock	
Actuator/Switch	Inside of right rear door, behind trim pad 84
Right Rear Door Switch	Near right rear door striker 82
Starter Relay	In fuse/relay box 38
Tailgate Door Key Detect	
and Tamper Switch	Inside left tailgate door, behind trim pad 92
Tailgate Door Lock	
Actuator/Switch	Inside left tailgate door, behind trim pad 91
Tailgate Switch	Center rear of luggage room floor 94
Taillight Relay	In fuse/relay box 35
Connector	
B-11 (8-WHT)	Below I/P, right of steering column 58
B-12 (16-WHT)	Below I/P, right of steering column 58
B-22 (2-WHT)	In left center pillar, behind door switch
B-35 (2-WHT)	In right center pillar, behind door switch
C-20 (1-GRY)	Left front of engine compartment 27
D-6 (4-GRY)	Inside left front door, behind trim pad 79
D-16 (4-GRY)	Inside right front door, behind trim pad 79
G-5 (4-GRY)	Inside left tailgate door, behind trim pad 92
H-8 (16-WHT)	Below I/P, above left dash side trim panel, on bracket 70
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket 100
H-13 (6-GRY)	Below I/P, above right dash side trim panel, on bracket 100
H-15 (14-WHT)	Below I/P, above right dash side trim panel, on bracket 115
H-18 (18-WHT)	Behind right dash side trim panel, in access hole 54
H-21 (8-WHT)	Below I/P, above right dash side trim panel, on bracket 100

Component Location Index

(Refer to Section 201 for photographs.)

Connector (cont'd)

		Photo No.
H-22 (18-WHT)	Behind left dash side trim panel, in access hole	54
H-26 (20-WHT)	Below I/P, above left dash side trim panel, on bracket	71
H-28 (6-WHT)	In left center pillar	81
H-29 (3-BLU)	In left center pillar	81
H-32 (22-WHT)	Below left front seat	105
H-34 (6-WHT)	In right center pillar	81
H-35 (3-BLU)	In right center pillar	81
H-37 (4-GRY)	Left rear of luggage room	89
H-38 (10-WHT)	Left rear of luggage room	89
H-41 (16-BLK)	Right front of engine compartment	31
R-1 (2-WHT)	Left front of luggage room, behind grommet	90
R-11 (2-WHT)	Right front of luggage room, behind grommet	90

Ground

B-2	Above right dash side trim panel	116
B-18	Behind top of left dash side trim panel	71
B-19	Behind top of left dash side trim panel	71
B-26	Below rear of center console	67
R-3	Left side of luggage room	90

Circuit Operation

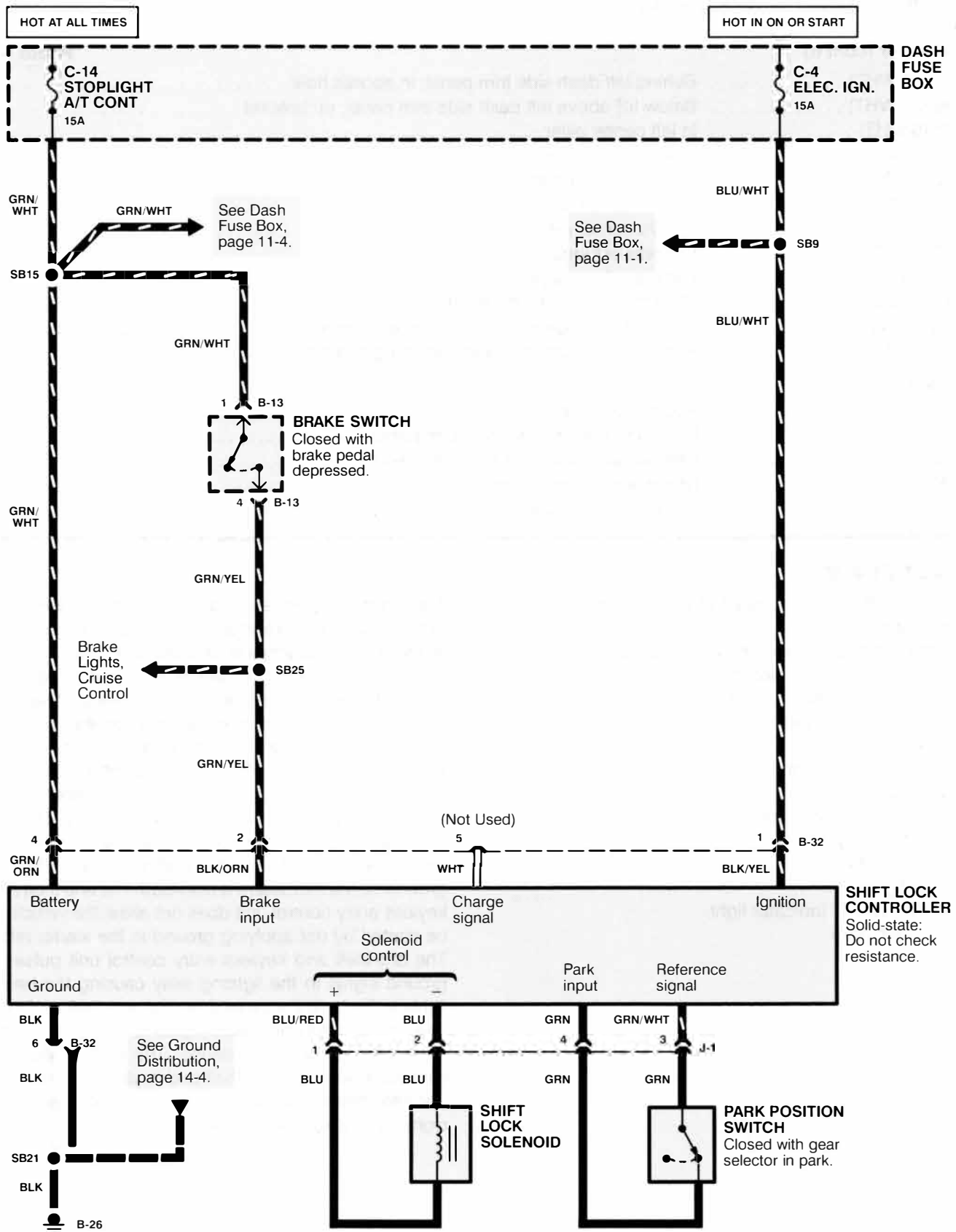
The Anti-theft System consists of the following components:

- Anti-theft and Keyless Entry control unit
- Left and right door switches
- Left front, right front, and tailgate door key detect and tamper switches
- Tailgate switch
- Engine hood switch
- Door lock actuators
- Left and right front door lock switches
- Lighting relay
- Starter relay
- Headlights
- "ANTI-THEFT" indicator light
- Anti-theft horn

The arming sequence is initiated with the starter switch in the LOCK position and all doors closed. This results in all theft related switches to be open to ground. The "ANTI-THEFT" indicator then flashes for about 30 seconds or until the arming sequence is completed. When the driver's door is locked using the door key, the door lock actuator internal switch will open, removing the ground signal from the anti-theft and keyless entry control unit input. Now all inputs to the anti-theft and keyless entry control unit are open to ground and the "ANTI-THEFT" indicator stays lit for about 8 seconds. The anti-theft system is now armed. If any of the theft related switches are grounded, the theft alarm is activated. The anti-theft and keyless entry control unit does not allow the vehicle to be started by not applying ground to the starter relay. The anti-theft and keyless entry control unit pulses a ground signal to the lighting relay causing the headlights to flash. At the same time, the anti-theft and keyless entry control unit pulses a ground signal to the anti-theft horn, causing it to sound. The system alarm is cancelled when the anti-theft and keyless entry control unit sees battery voltage at its ignition input or a ground signal at its key detect input.

SHIFT INTERLOCK SYSTEM

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

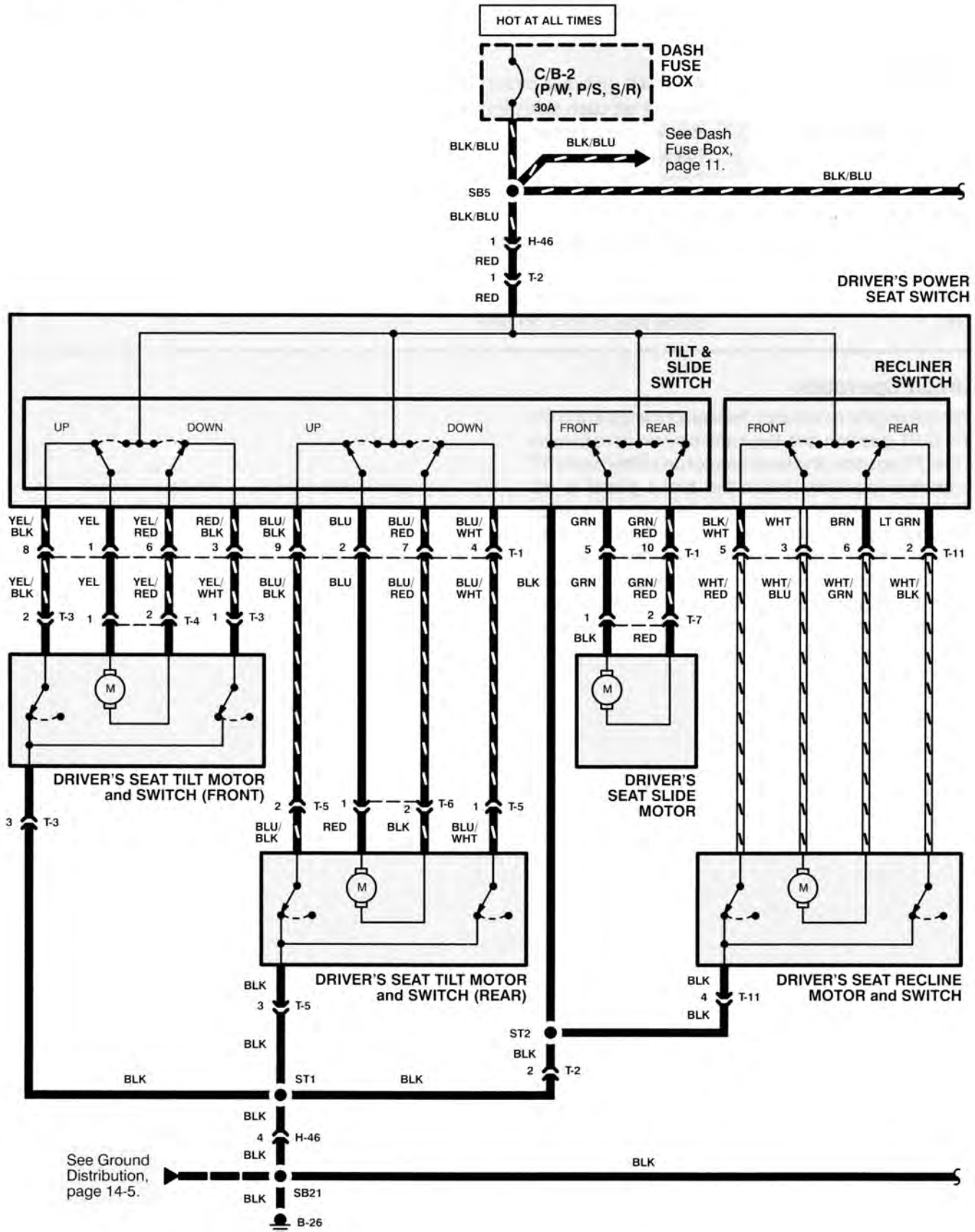
<u>Component</u>	<u>Photo No.</u>
Brake Switch Below I/P, on brake pedal support	74
Dash Fuse Box Behind left dash side trim panel	55
Park Position Switch Below front console	66
Shift Lock Controller Below front console	65
Shift Lock Solenoid Below front console	65
<u>Connector</u>	
J-1 (4-WHT) Below front of front console	65
<u>Ground</u>	
B-26 Below rear of center console	67
B-32 Below rear of front console	66

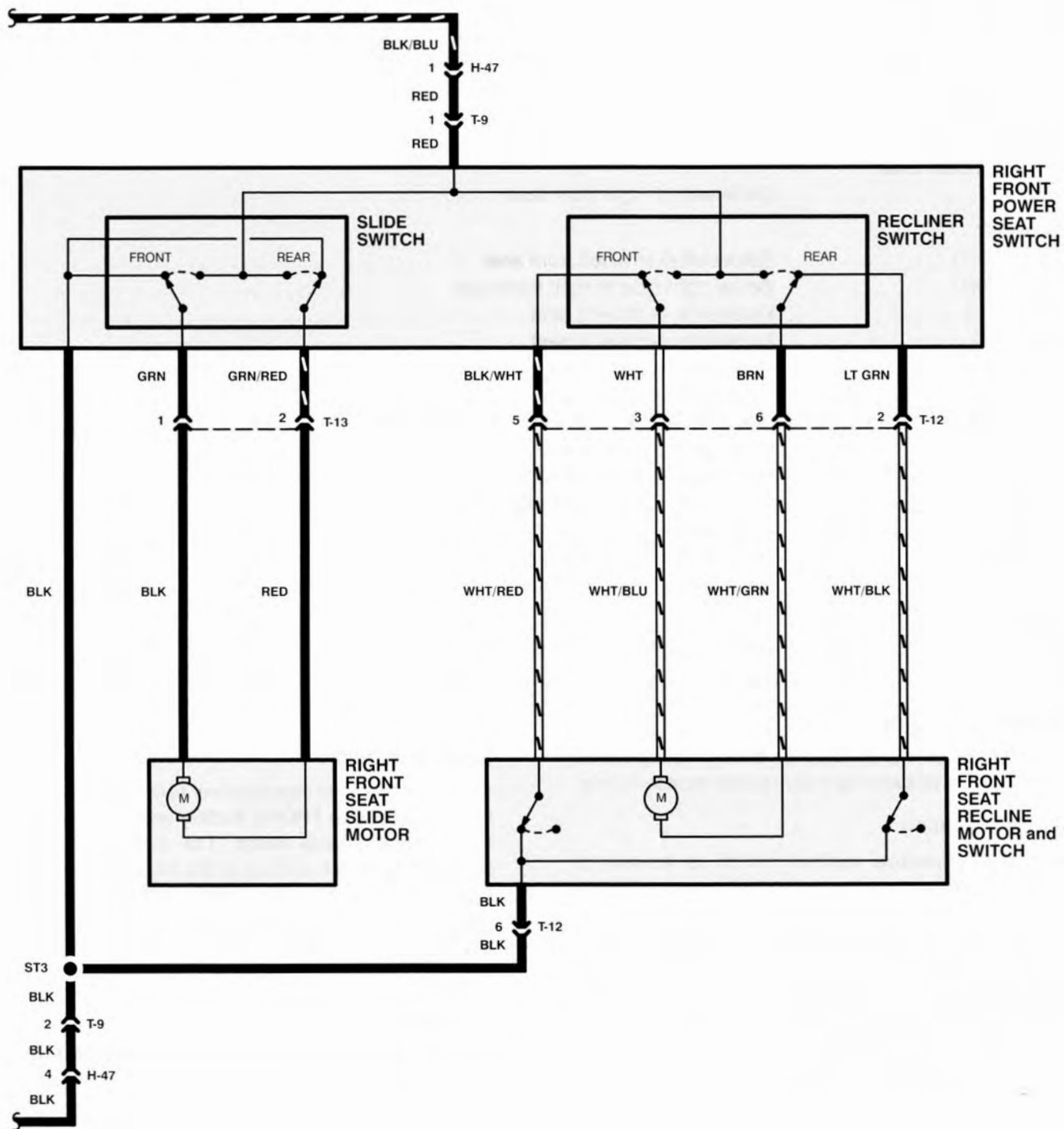
Circuit Operation

With the engine running or the starter switch in the ON or START position and the transmission control lever in the “P” position, the lever cannot be shifted from “P” to another position unless the brake pedal is depressed. A signal is sent through the parking position detecting switch to the shift lock controller and the shift lock solenoid energizes preventing the transmission control lever from being moved. When the brake pedal is depressed, a signal is sent to the shift lock controller. The shift lock controller then deenergizes the shift lock solenoid and allows the transmission control lever to be moved.

POWER SEATS

Circuit Schematic





POWER SEATS

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Dash Fuse Box	Behind left dash side trim panel 55
Driver's Seat Recline	
Motor and Switch	In driver's seatback 113
Driver's Seat Slide Motor	Underside of driver's seat 107
Driver's Seat Tilt Motor	
and Switch (Front)	Underside of driver's seat 106
Driver's Seat Tilt Motor	
and Switch (Rear)	Underside of driver's seat 106
Right Front Seat Recline	
Motor and Switch	In right front seatback 113
Right Front Seat Slide	
Motor	Underside of right front seat 111
Connector	
H-46 (6-WHT)	Below left side of left front seat 105
H-47 (6-WHT)	Below right side of right front seat 110
T-1 (10-BLU)	Underside of driver's seat 107
T-2 (2-WHT)	Underside of driver's seat 108
T-3 (3-WHT)	Underside of driver's seat 108
T-4 (2-WHT)	Underside of driver's seat 108
T-5 (3-GRY)	Underside of driver's seat 109
T-6 (2-GRY)	Underside of driver's seat 109
T-7 (2-GRY)	Underside of driver's seat 107
T-9 (2-WHT)	Underside of right front seat 112
T-11 (6-BLU)	Underside of driver's seat 108
T-12 (6-BLU)	Underside of right front seat 112
T-13 (2-GRY)	Underside of right front seat 112
Ground	
B-26	Below rear of center console 67

Circuit Operation

The circuit breaker C/B-2 applies battery voltage at all times to the driver's and right front power seat switches.

Recline Operation

When the respective recliner switch is moved to FRONT, battery voltage is applied to the respective recliner motor. The motor is grounded through the rear contact of the recline switch and the recliner motor's limit switch to B-26. The motor will run until the recline switch is released or the seat reaches the full recline position and the motor's limit switch opens. The contacts for REAR operation of the recline switch are wired the opposite way of the FRONT contacts, causing the motor to run in the opposite direction.

Slide Operation

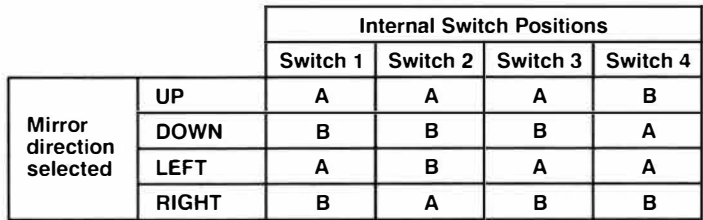
When the tilt & slide switch (driver's) or slide switch (right front) is moved to FRONT, battery voltage is applied to the respective slide motor. The motor is grounded through the REAR contact of the slide switch to B-26. The motor will run until the slide switch is released. The contacts for REAR operation of the slide switch are wired the opposite way of the FRONT contacts, causing the motor to run in the opposite direction.

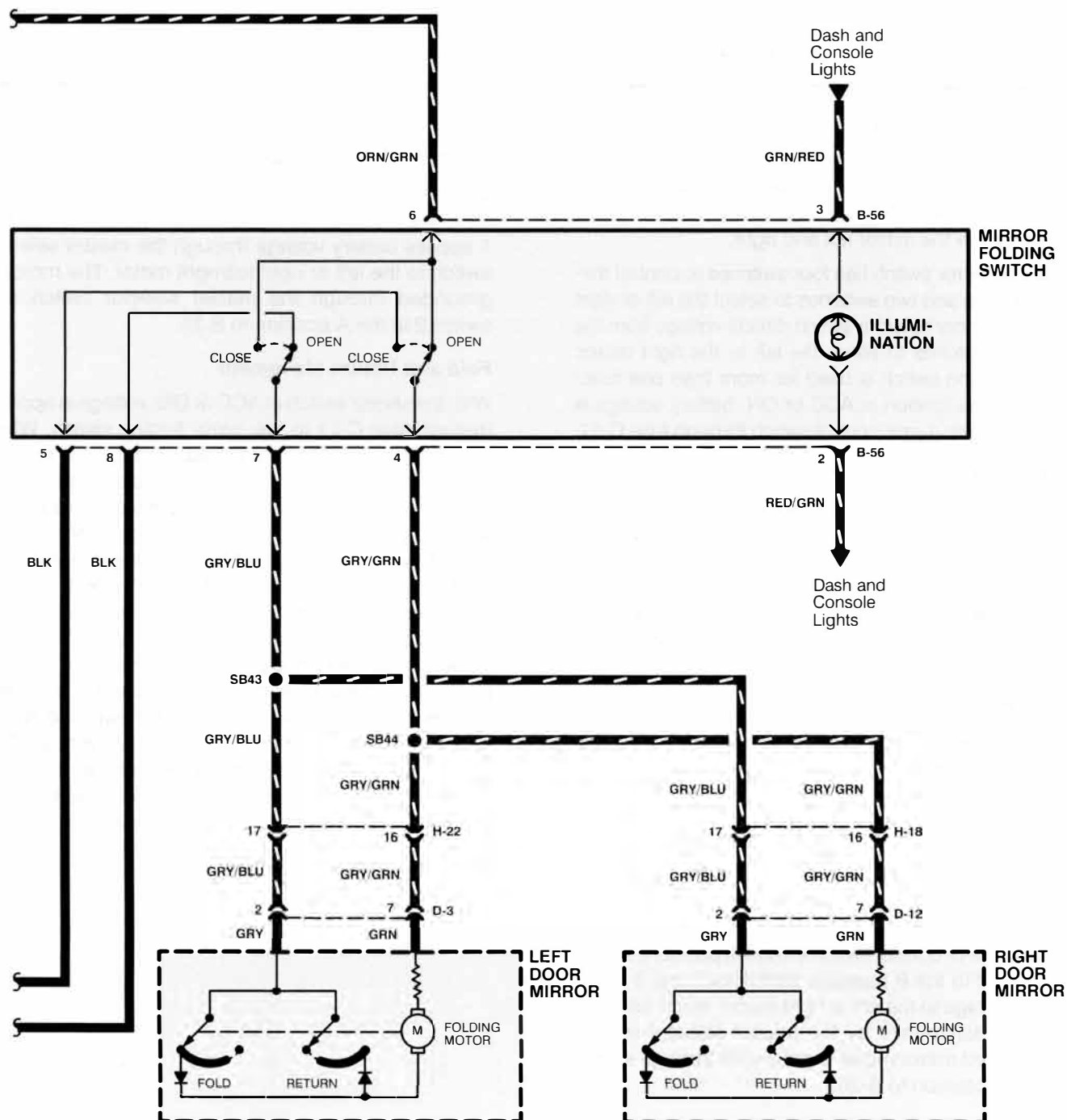
Tilt Operation

Both tilt operations (front and rear) are similar to the recline operation.

THIS PAGE INTENTIONALLY LEFT BLANK

Circuit Schematic





POWER MIRRORS

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Dash Fuse Box Behind left dash side trim panel	55
Connector	
D-3 (8-WHT) In top of left front door	78
D-12 (8-WHT) In top of right front door	78
H-18 (18-WHT) Behind right dash side trim panel, in access hole	54
H-22 (18-WHT) Behind left dash side trim panel, in access hole	54
Ground	
B-26 Below rear of center console	67

Circuit Operation

The two outside mirrors are controlled by the power mirror switch. Each mirror has two reversible motors: one motor moves the mirror up and down and the other motor moves the mirror left and right.

The door mirror switch has four switches to control mirror direction, and two switches to select the left or right mirror. The door selector switch directs voltage from the direction switches to either the left or the right mirror. Each direction switch is used for more than one function. With the ignition in ACC or ON, battery voltage is supplied to the mirror control switch through fuse C-11.

Mirror Up Operation

With the mirror control switch in the up position, switch 4 is moved to the B position. Switches 3 and 4 apply battery voltage to the left or right power mirror up/down motor as determined by the master selector switch. The selected mirror motor is grounded through the master selector switch and switch 1 in the A position to B-26.

Mirror Down Operation

With the mirror control switch in the down position, switches 1, 2 and 3 are moved to the B position. Switch 1 applies battery voltage to the left or right power mirror up/down motor as determined by the master selector switch. The selected mirror motor is grounded through switch 4 in the A position to B-26.

Mirror Left Operation

With the mirror control switch in the left position, switch 2 is moved to the B position. Switches 2 and 3 apply battery voltage to the left or right power mirror left/right motor as determined by the master selector switch. The selected mirror motor is grounded through switch 1 in the A position to B-26.

Mirror Right Operation

With the mirror control switch in the right position, switches 1, 3, and 4 are moved to the B position. Switch 1 applies battery voltage through the master selector switch to the left or right left/right motor. The motor is grounded through the master selector switch and switch 2 in the A position to B-26.

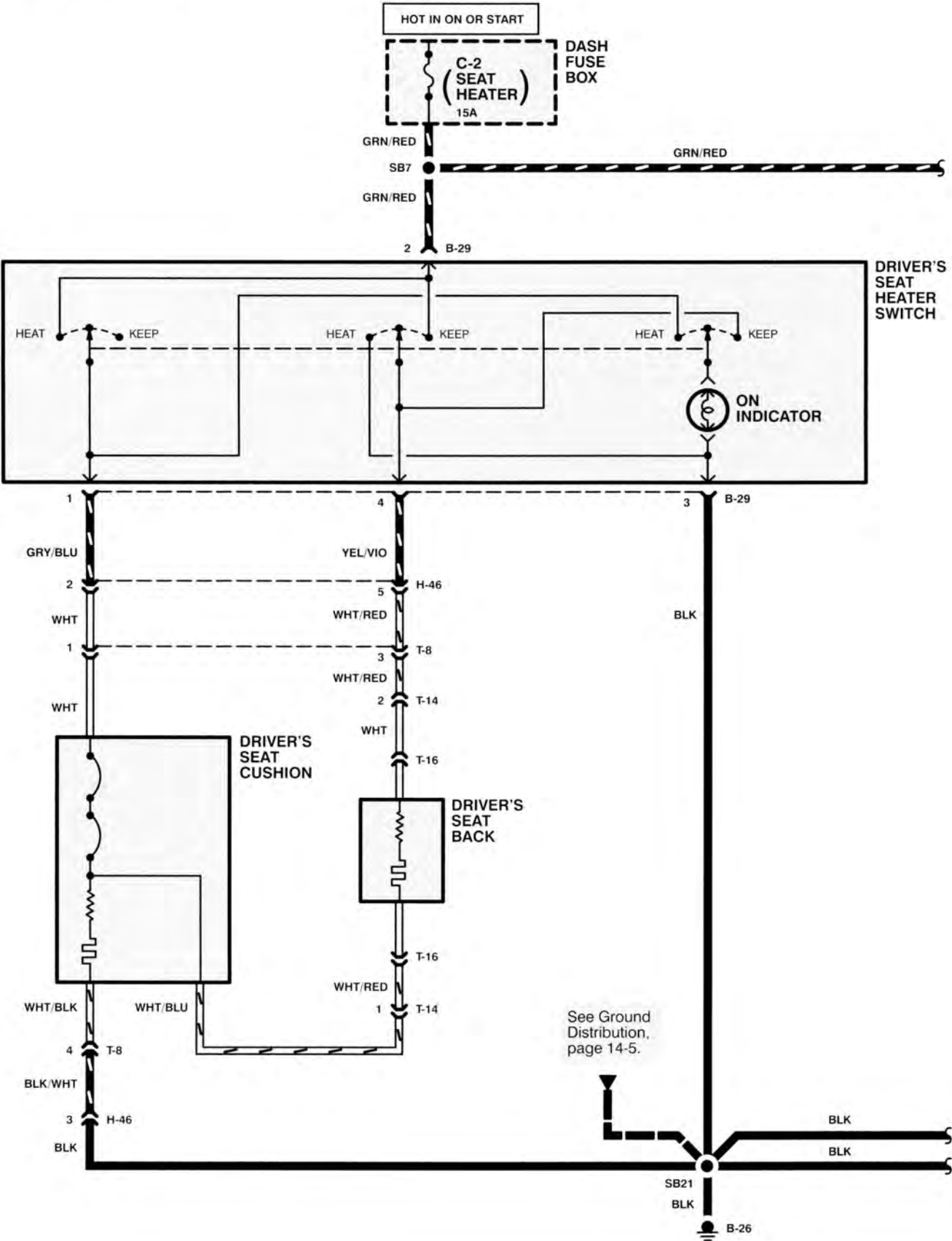
Fold and Return Movement

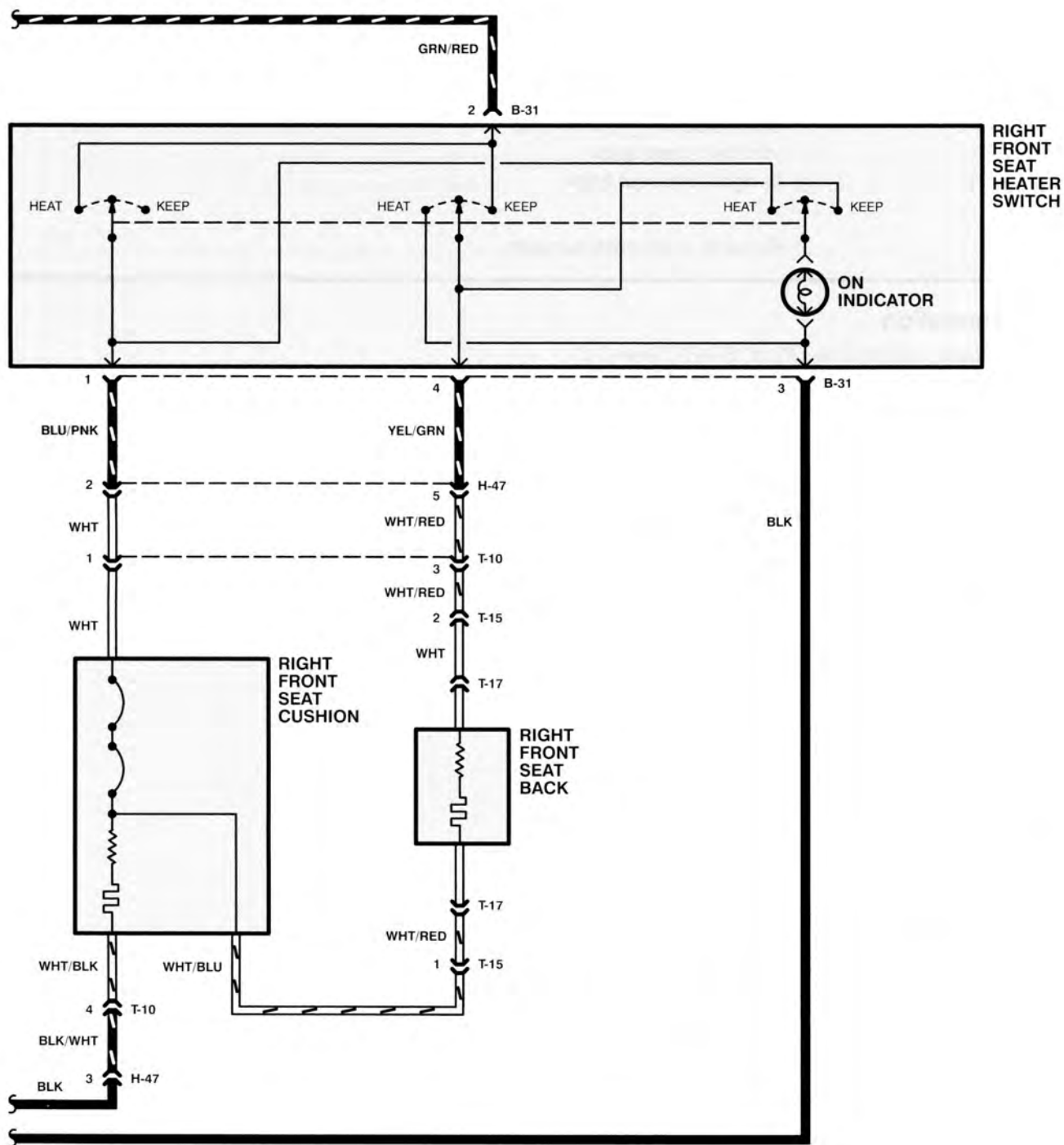
With the starter switch in ACC or ON, voltage is applied through fuse C-11 to the mirror folding switch. When the folding switch is pressed, voltage is applied through fold switches (in the door mirrors) to the folding motors. Ground is provided for the motors through the folding switch to B-26. The left and right door mirrors move towards the fold position. When the mirrors reach the fold position, the fold switches (in the door mirrors) open, removing voltage from the folding motors and they stop. When the folding switch is pressed again, voltage is applied through the folding switch to the opposite side of the folding motors. Ground is provided from B-26 through the folding switch and the return switches (in the door mirrors) to the folding motors. The left and right door mirrors move towards the return position. When the mirrors reach the return position, the return switches (in the door mirrors) open and remove ground from the motors and they stop.

THIS PAGE INTENTIONALLY LEFT BLANK

SEAT HEATER

Circuit Schematic





SEAT HEATER

Component Location Index

(Refer to Section 201 for photographs.)

Component	Photo No.
Dash Fuse Box Behind left dash side trim panel	55
Connector	
H-46 (6-WHT) Below left side of left front seat	105
H-47 (6-WHT) Below right side of right front seat	110
T-8 (4-WHT) Underside of driver's seat	107
T-10 (4-WHT) Underside of right front seat	111
T-14 (2-BLK) Underside of driver's seat	109
T-15 (2-BLK) Underside of right front seat	111
T-16 (2-WHT) In driver's seat back	113
T-17 (2-WHT) In right front seat back	113
Ground	
B-26 Below rear of center console	67

Circuit Operation

When the starter switch is in ON or START, fuse C-2 applies battery voltage to the driver's and right front seat heater switches.

Heat Operation

When the driver's or right front seat heater switch is moved to HEAT, battery voltage is applied through the circuit breakers in the respective seat cushion to both the seat cushion and seat back heating elements. The seat back is grounded through the seat heater switch to B-26 while the seat cushion is grounded directly to B-26. With battery voltage applied to the heating elements in this manner, they draw the maximum current causing them to heat up quickly and to a high temperature. When the temperature becomes too high the circuit breakers in the seat cushion open, removing the voltage to the circuit. When the temperature falls to a safe temperature, the circuit breakers close, supplying voltage to the circuit.

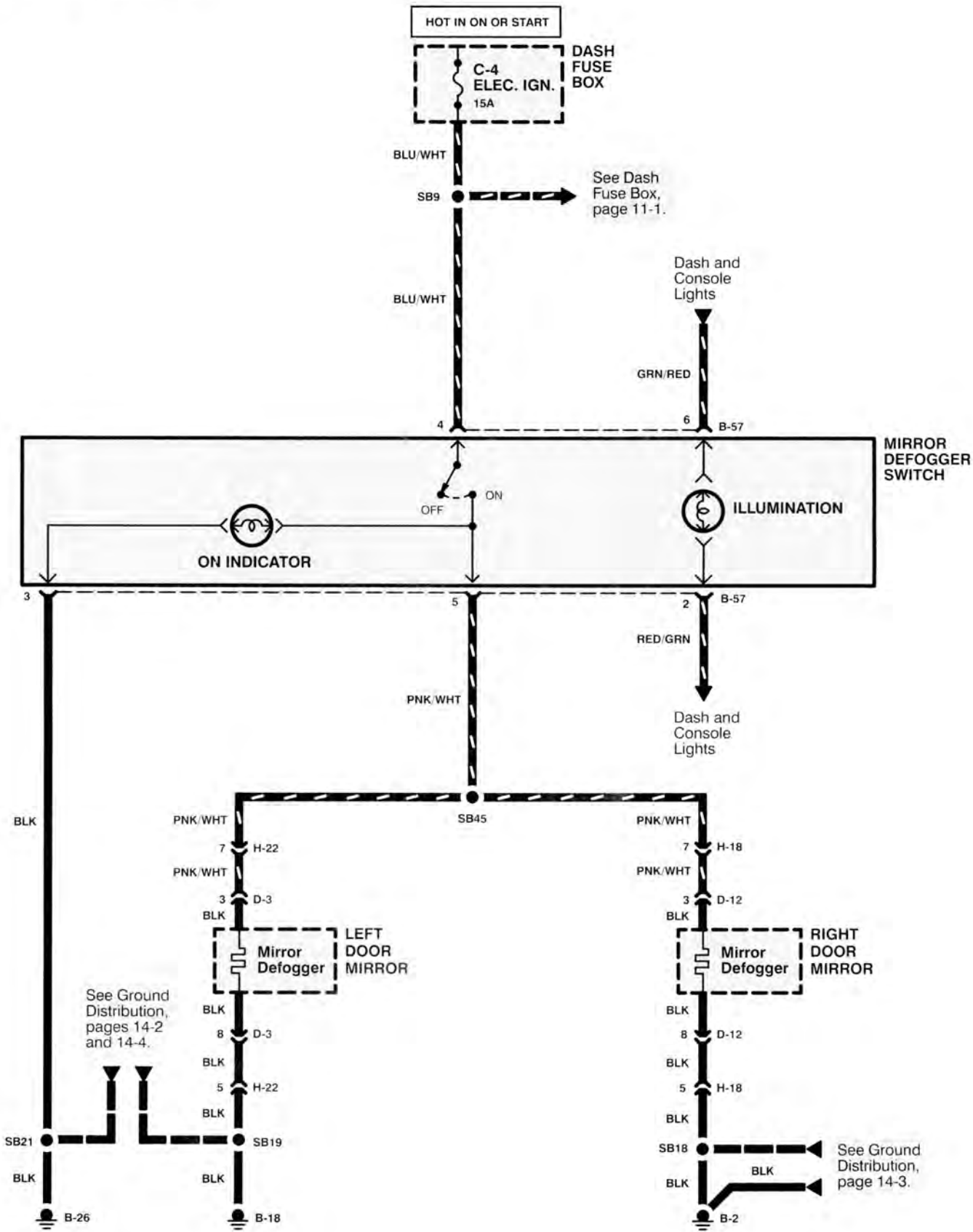
Keep Operation

When the driver's or right front seat heater switch is moved to KEEP, battery voltage is applied through the respective seat cushion heating element to the respective seat cushion heating element. The respective seat cushion is grounded directly to B-26. With battery voltage applied to the heating elements in this manner, they draw less current, and do not reach as high of a temperature as in the HEAT position.

THIS PAGE INTENTIONALLY LEFT BLANK

DOOR MIRROR DEFOGGERS

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

<u>Component</u>	<u>Photo No.</u>
Dash Fuse Box Behind left dash side trim panel	55
Connector	
D-3 (8-WHT) In top of left front door	78
D-12 (8-WHT) In top of right front door	78
H-18 (18-WHT) Behind right dash side trim panel, in access hole	54
H-22 (18-WHT) Behind left dash side trim panel, in access hole	54
Ground	
B-2 Above right dash side trim panel	116
B-18 Behind top of left dash side trim panel	71
B-26 Below rear of center console	67

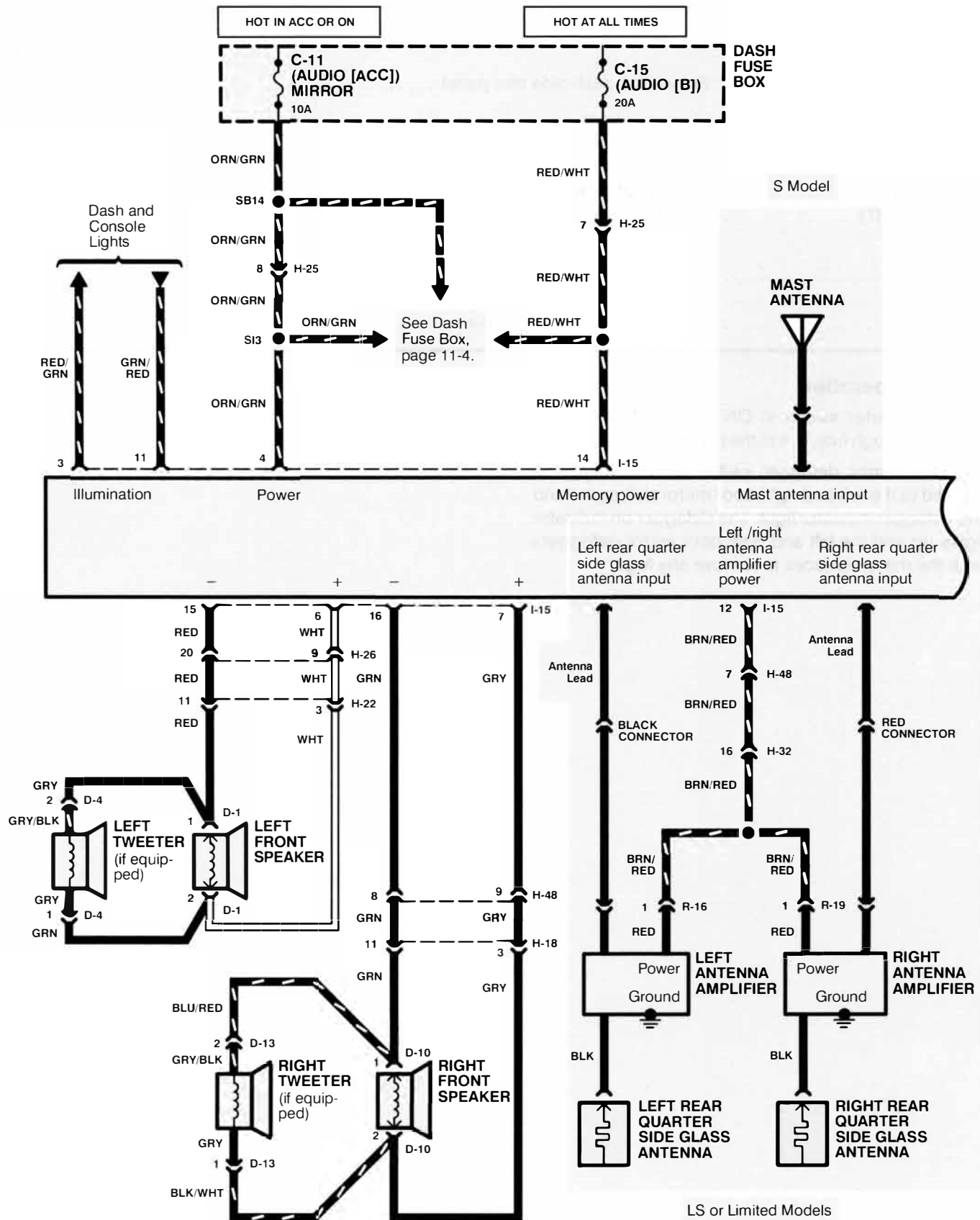
Circuit Operation

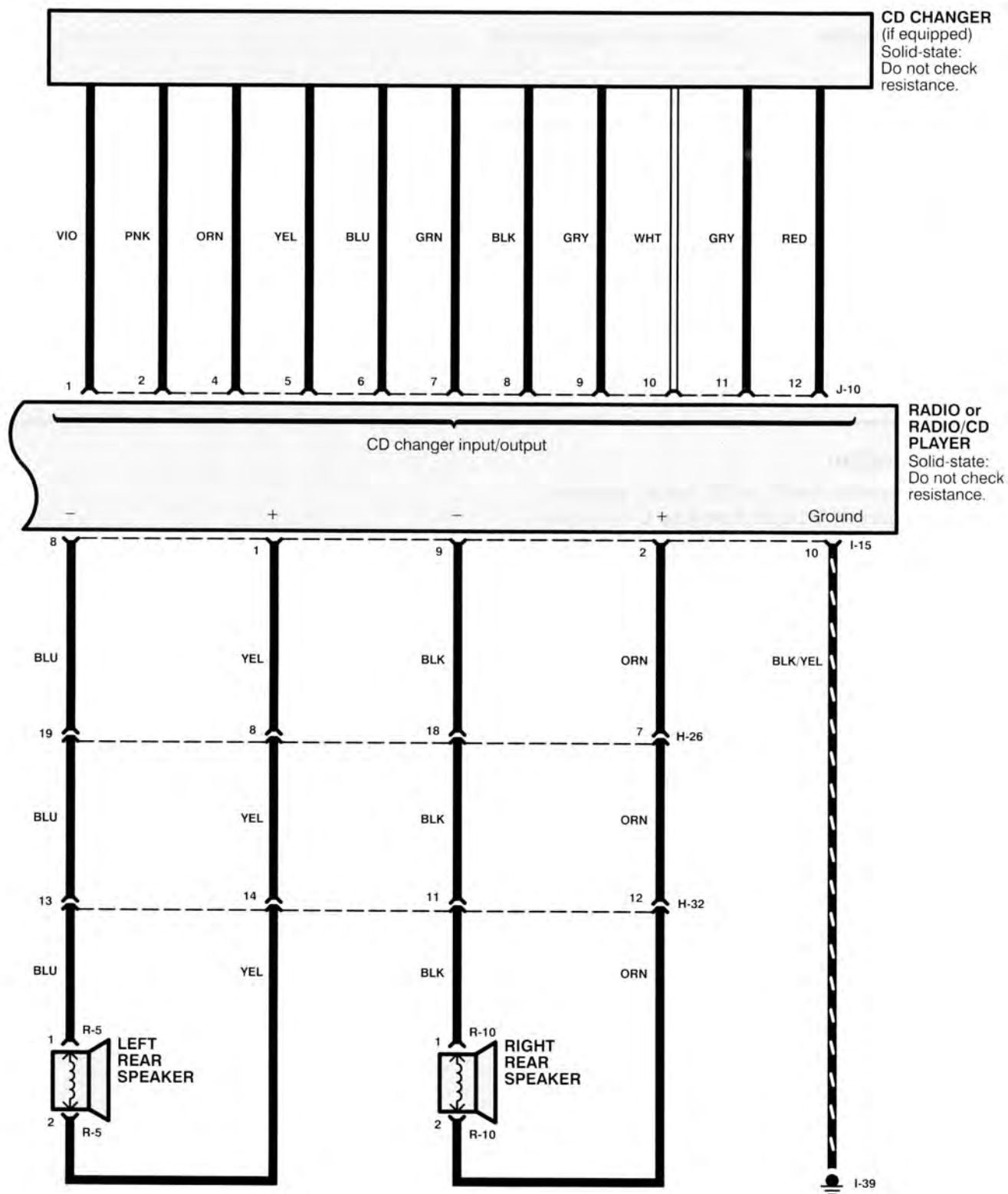
With the starter switch in ON or START, voltage is applied through fuse C-4 to the mirror defogger switch.

With the mirror defogger switch in ON, voltage is applied to the left and right door mirror defoggers and the defogger indicator light. The defogger on indicator lights up and the left and right door mirror defoggers heat the mirror surfaces to remove any fog.

SOUND SYSTEM

Circuit Schematic





SOUND SYSTEM

Component Location Index

(Refer to Section 201 for photographs.)

<u>Component</u>		<u>Photo No.</u>
Dash Fuse Box	Behind left dash side trim panel	55
Left Antenna Amplifier	Left side of luggage room	117
Right Antenna Amplifier	Right side of luggage room	117
<u>Connector</u>		
D-4 (2-BLK/WHT)	Top front of left front door	76
D-13 (2-BLK/WHT)	Top front of right front door	76
H-18 (18-WHT)	Behind right dash side trim panel, in access hole	54
H-22 (18-WHT)	Behind left dash side trim panel, in access hole	54
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket	71
H-26 (20-WHT)	Below I/P, above left dash side trim panel, on bracket	71
H-32 (22-WHT)	Below left front seat	105
H-48 (16-BLK)	Behind right dash side trim panel	120
R-16 (2-WHT/BLK)	Left side of luggage room	117
R-19 (2-WHT/BLK)	Right side of luggage room	117
<u>Ground</u>		
I-39	Behind right side of lower cluster assembly	63

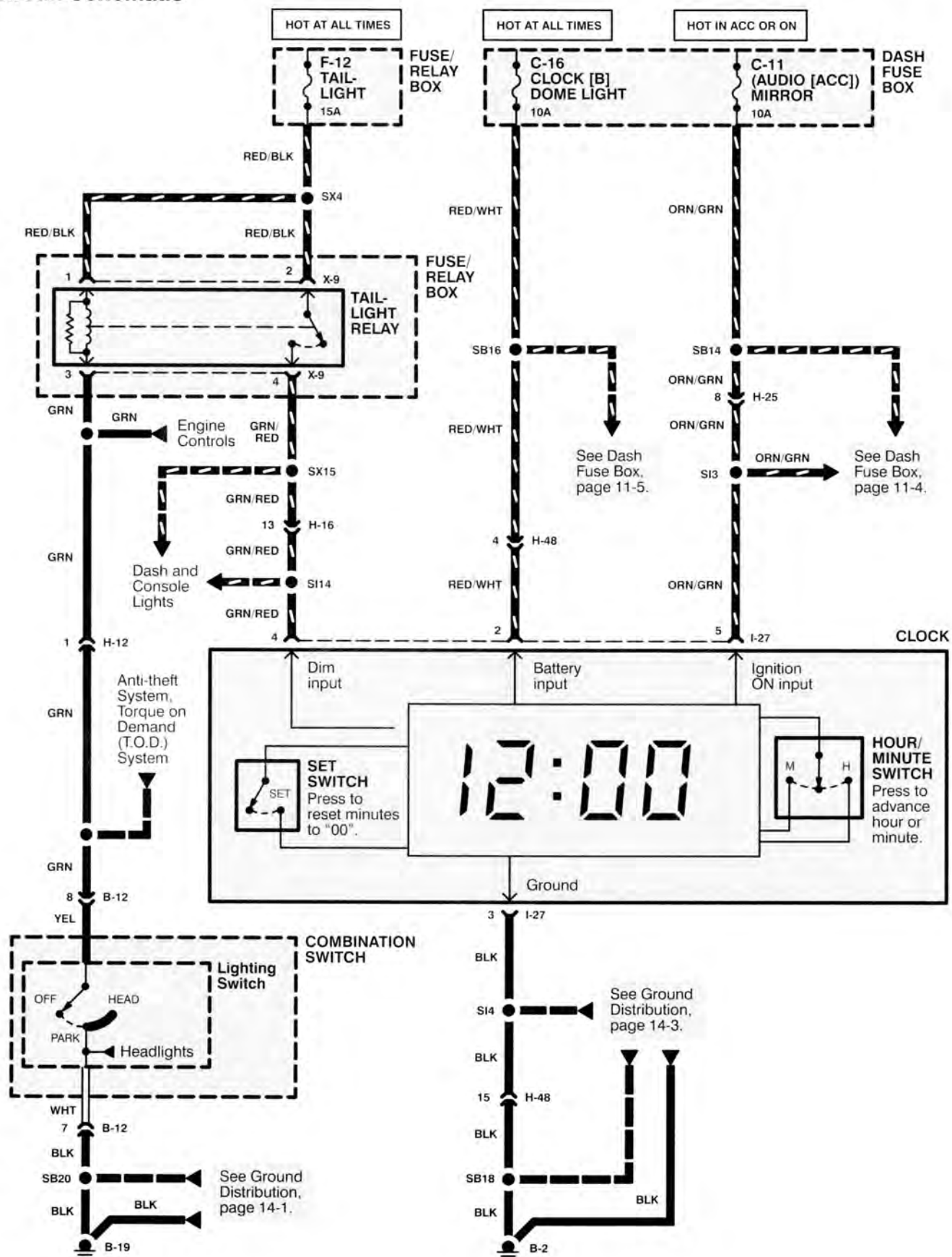
Circuit Operation

With the starter switch in ACC or ON, battery voltage is applied to the radio/CD player from fuse C-11. When you turn the radio/CD player on, battery voltage is applied to the receiver circuits in the radio/CD player. Fuse C-15 is hot at all times and provides battery voltage to the radio/CD player for its memory circuits.

THIS PAGE INTENTIONALLY LEFT BLANK

DIGITAL CLOCK

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

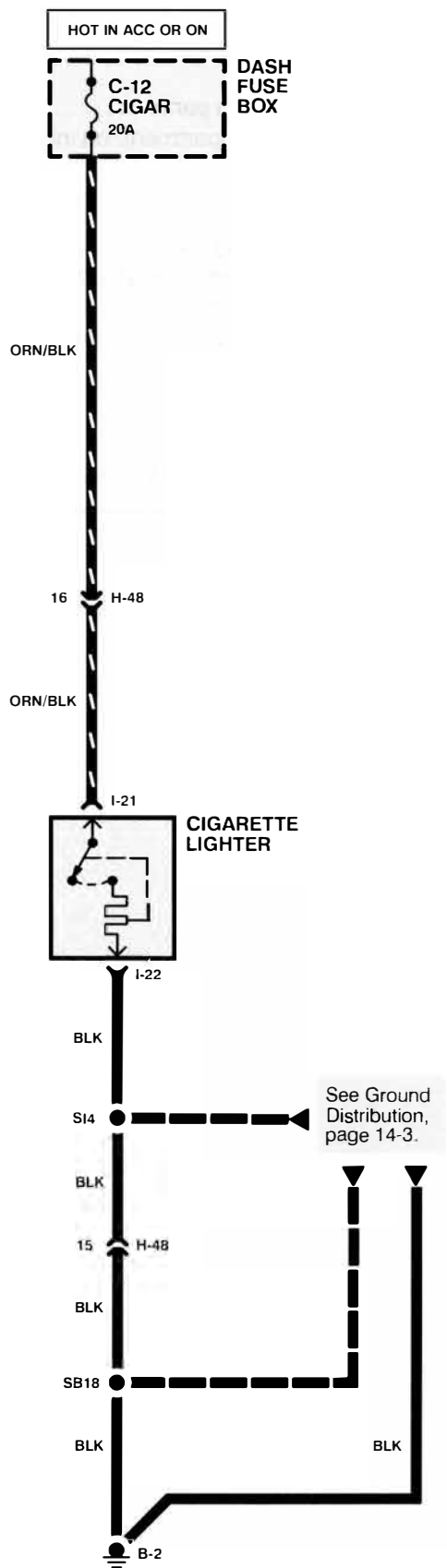
Component		Photo No.
Dash Fuse Box	Behind left dash side trim panel	55
Fuse/Relay Box	Right side of engine compartment, on inner fender panel	41
Taillight Relay	In fuse/relay box	35
Connector		
B-12 (16-WHT)	Below I/P, right of steering column	58
H-12 (20-WHT)	Below I/P, above right dash side trim panel, on bracket	100
H-16 (22-WHT)	Behind right dash side trim panel	120
H-25 (22-BLU)	Below I/P, above left dash side trim panel, on bracket	71
H-48 (16-BLK)	Behind right dash side trim panel	120
Ground		
B-2	Above right dash side trim panel	116
B-19	Behind top of left dash side trim panel	71

Circuit Operation

With the starter switch in ACC or ON, battery voltage is applied to the clock from fuse C-11 and the time display appears. Battery voltage is supplied through fuse C-16 at all times to keep the clock running. When the light switch is switched to PARK or HEAD, a dimming signal is sent to the clock and the clock display dims.

CIGARETTE LIGHTER

Circuit Schematic



Component Location Index

(Refer to Section 201 for photographs.)

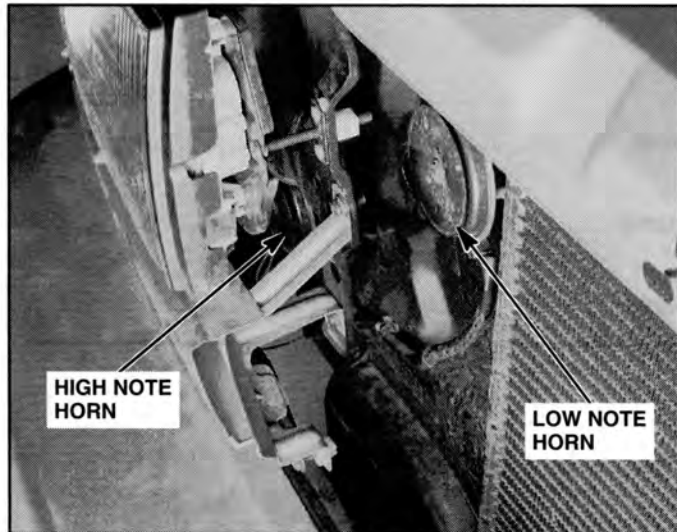
<u>Component</u>	<u>Photo No.</u>
Dash Fuse Box Behind left dash side trim panel	55
<u>Connector</u>	
H-48 (16-BLK) Behind right dash side trim panel	120
<u>Ground</u>	
B-2 Above right dash side trim panel	116

Circuit Operation

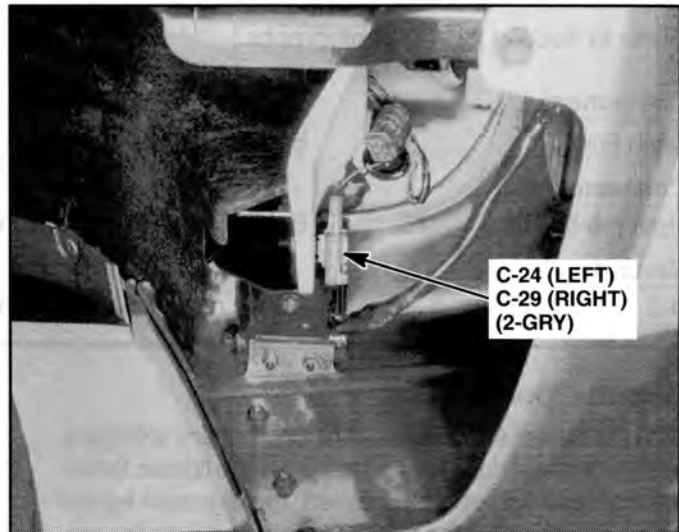
With the starter switch in ACC or ON, battery voltage is applied through fuse C-12 to the cigarette lighter. When the cigarette lighter is depressed, the cigarette lighter element completes the circuit to ground. When the element becomes sufficiently heated, it is spring-released and the circuit opens.

COMPONENT LOCATION PHOTOGRAPHS

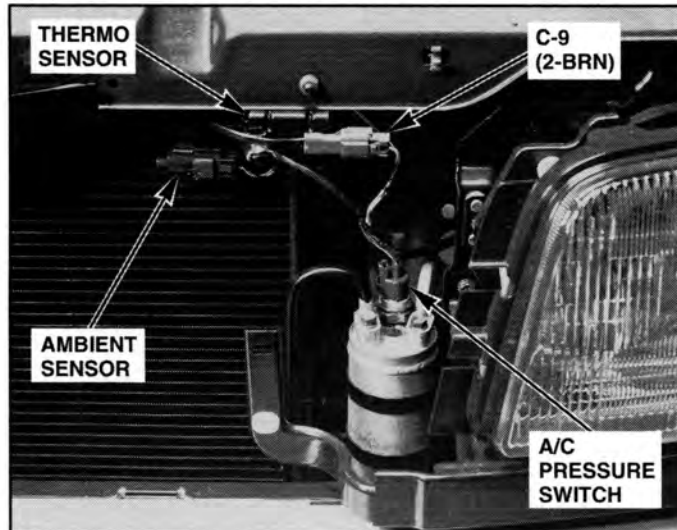
1. Right Front of Vehicle (Grille Removed)



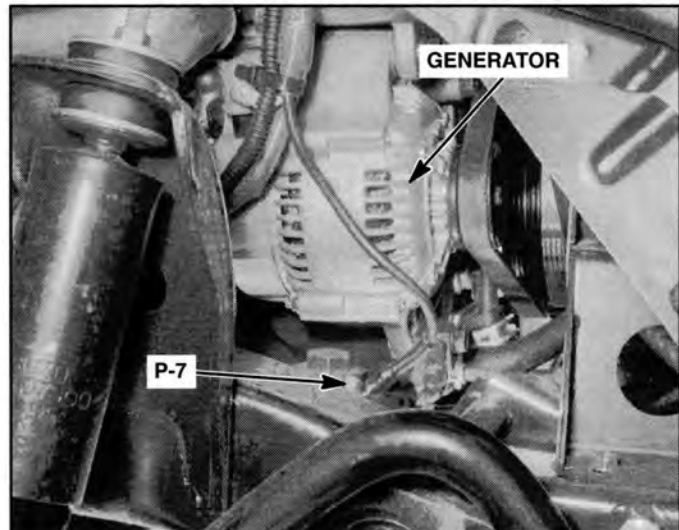
4. Behind Side of Front Bumper (Right Similar)



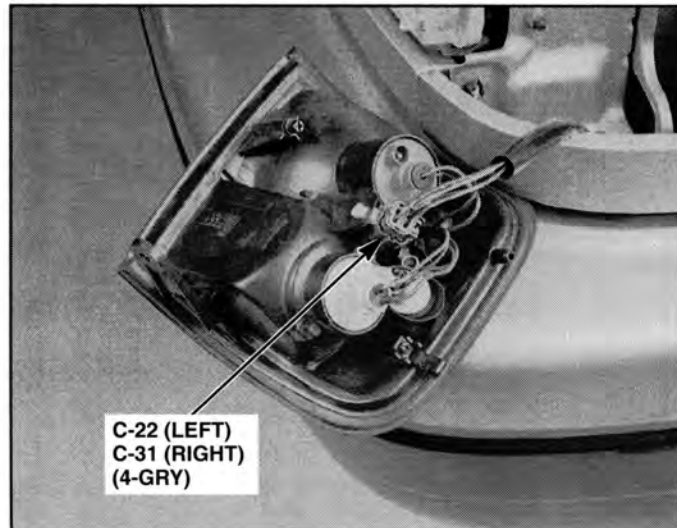
2. Front of Vehicle (Grille Removed)



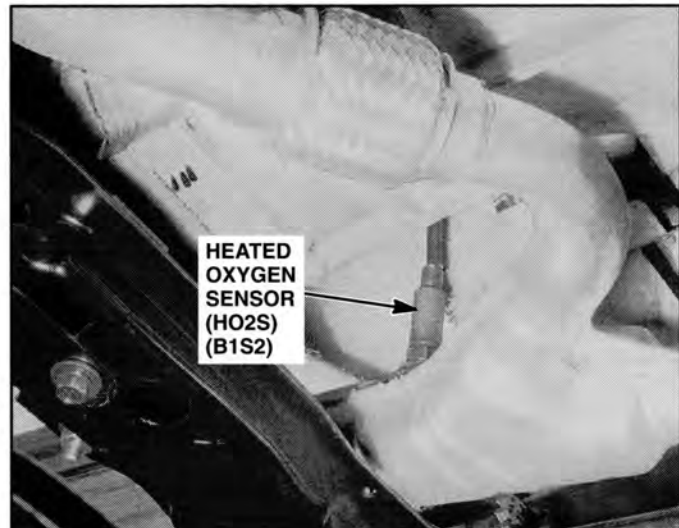
5. Lower Right Front of Engine Compartment



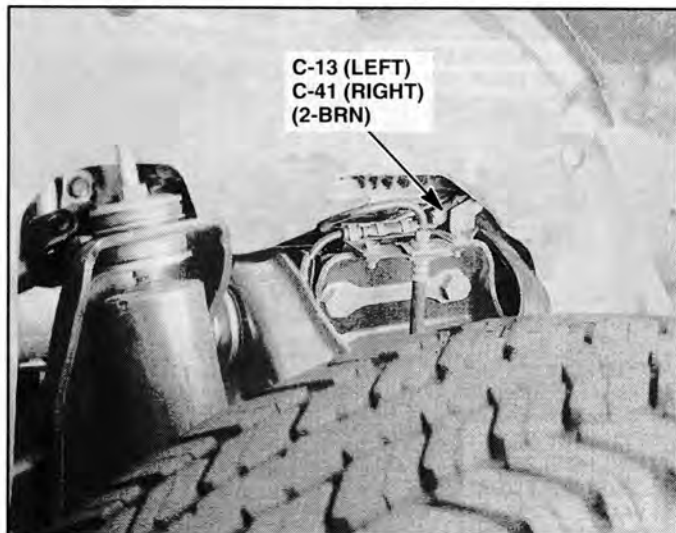
3. Left Front of Vehicle (Right Similar)



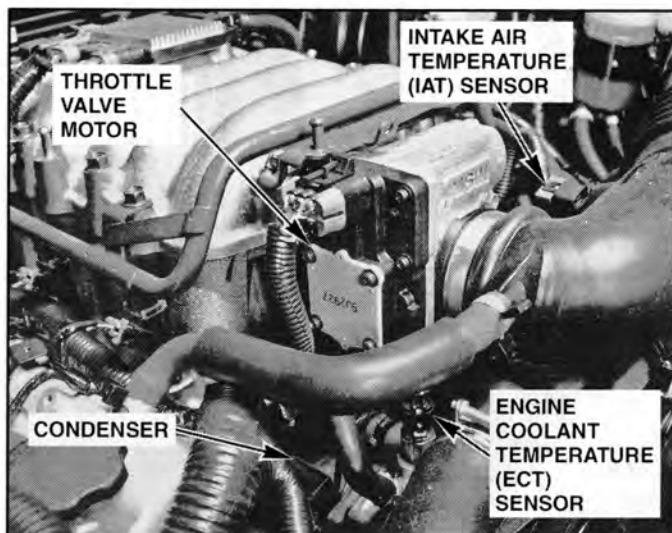
6. Left Side of Manual Transmission



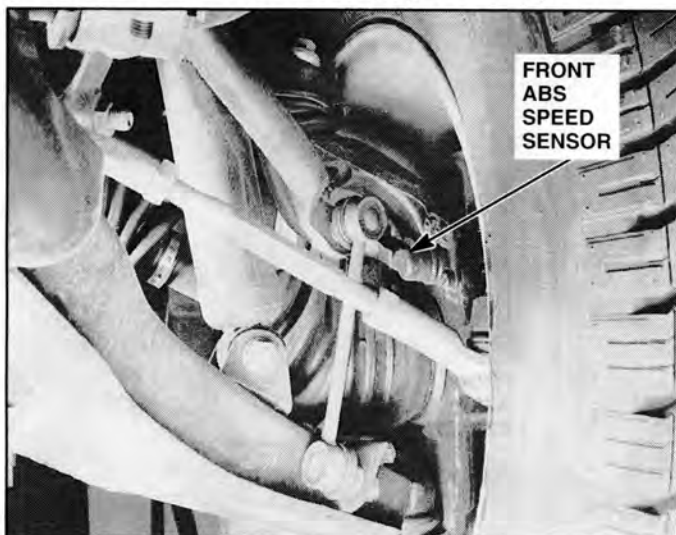
7. Inside of Left Front Fender (Right Similar)



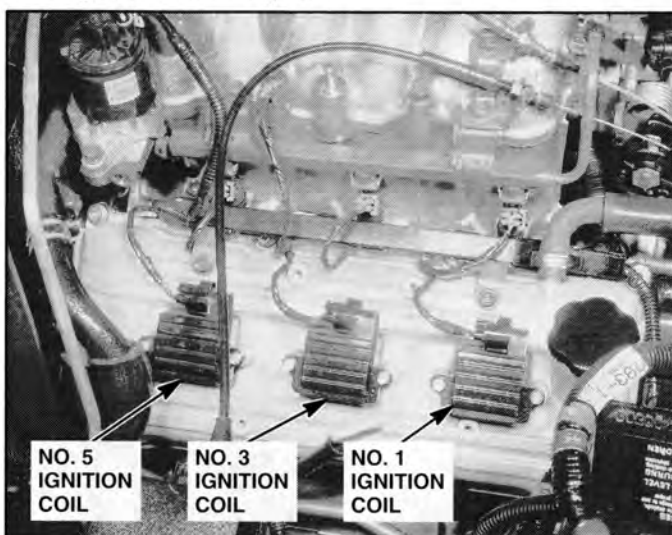
10. Top Front of Engine



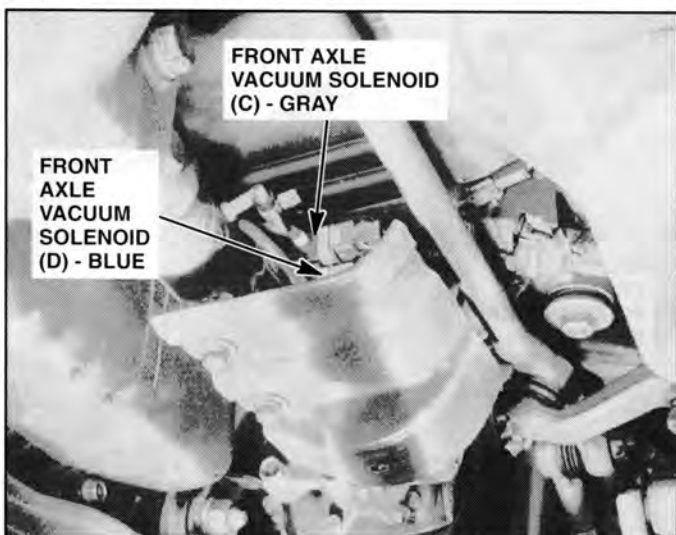
8. Inside of Left Front Wheel (Right Similar)



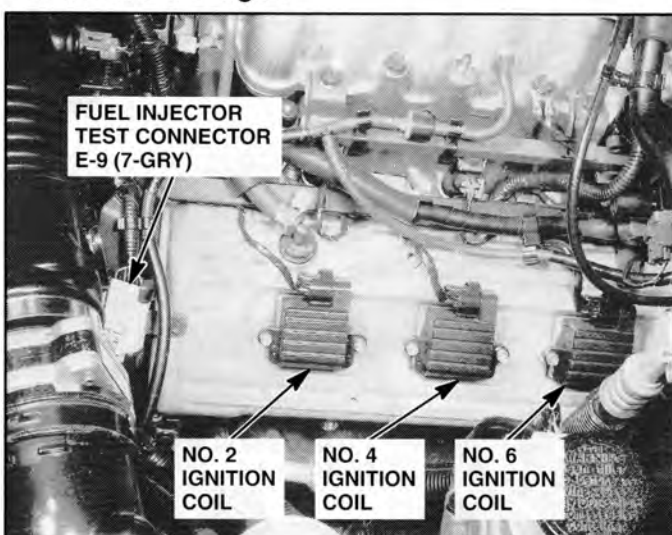
11. Right Side of Engine



9. Center of Front Differential

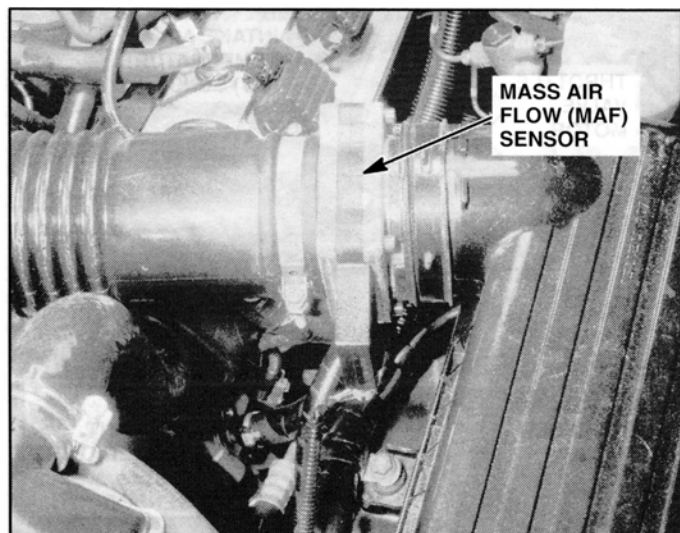


12. Left Side of Engine

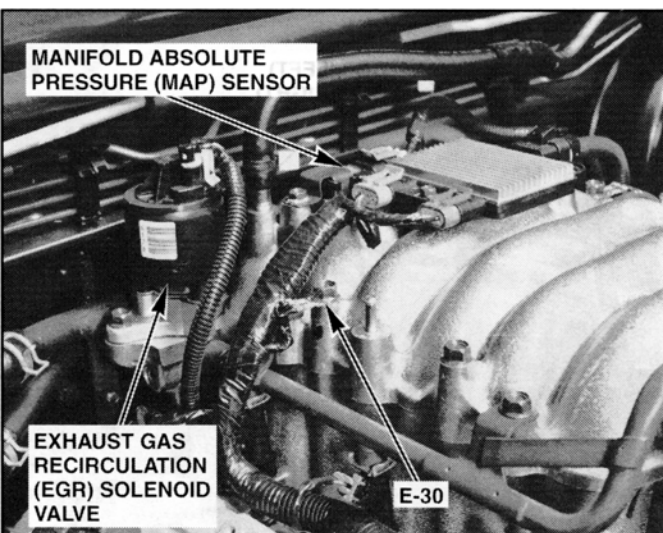


COMPONENT LOCATION PHOTOGRAPHS

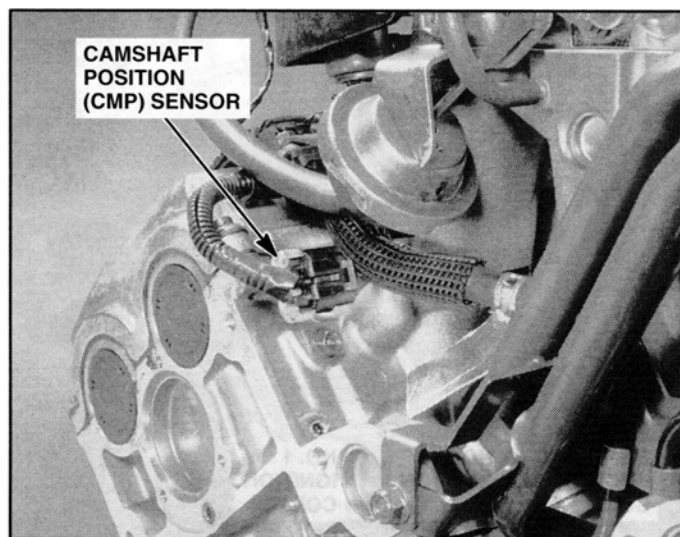
13. Front Left Side of Engine Compartment



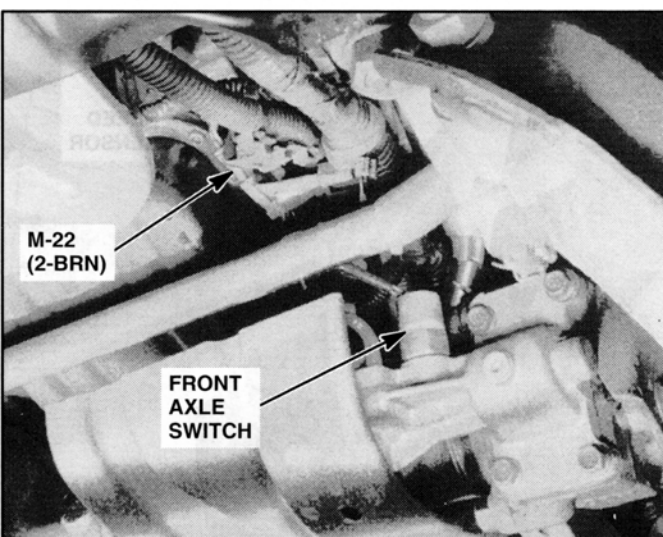
16. Right Side of Engine



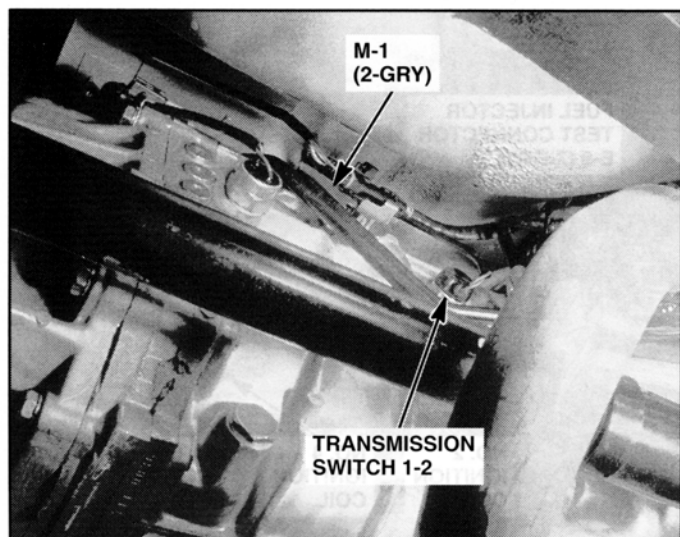
14. Top Rear of Engine (On Stand)



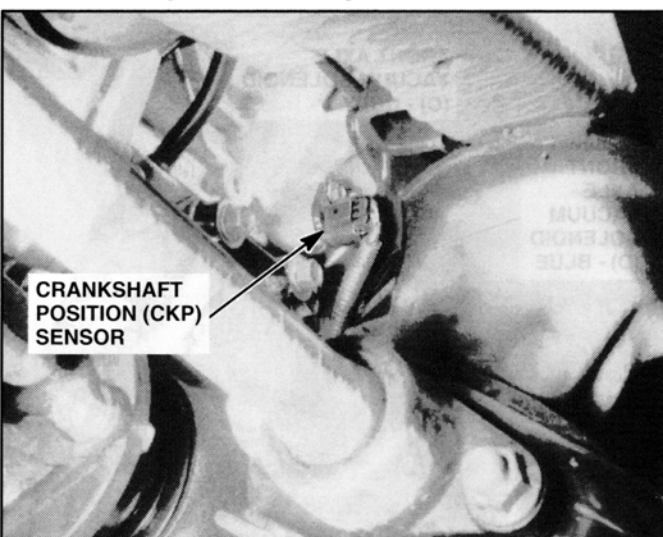
17. Left Side of Front Differential



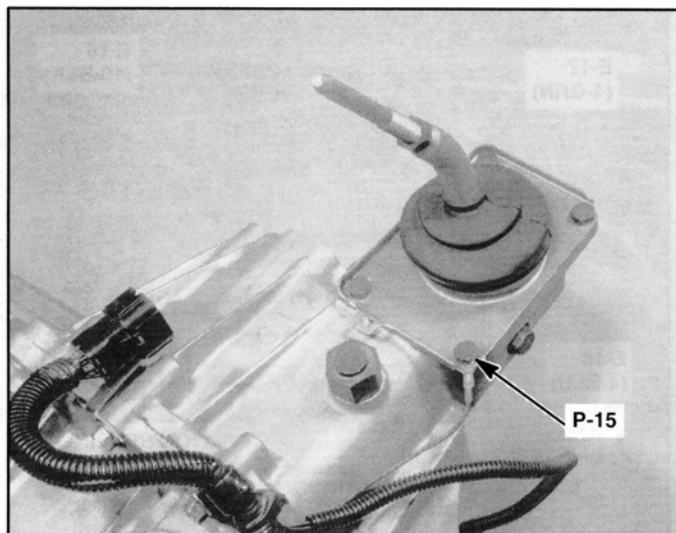
15. Right Side of Manual Transmission



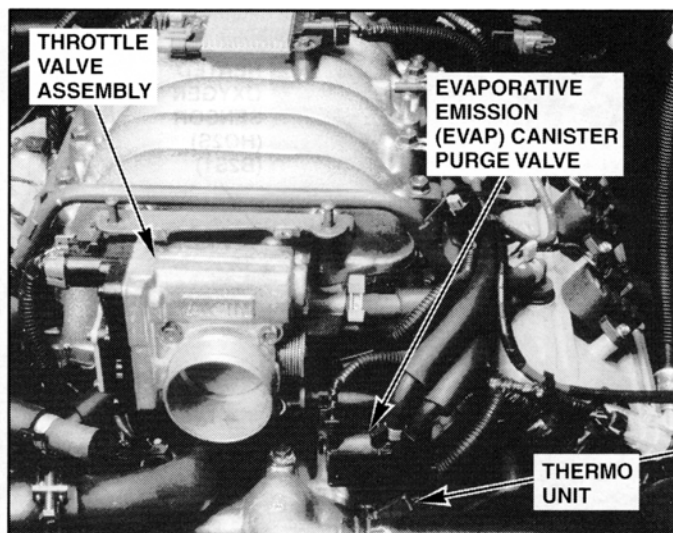
18. Lower Right Side of Engine



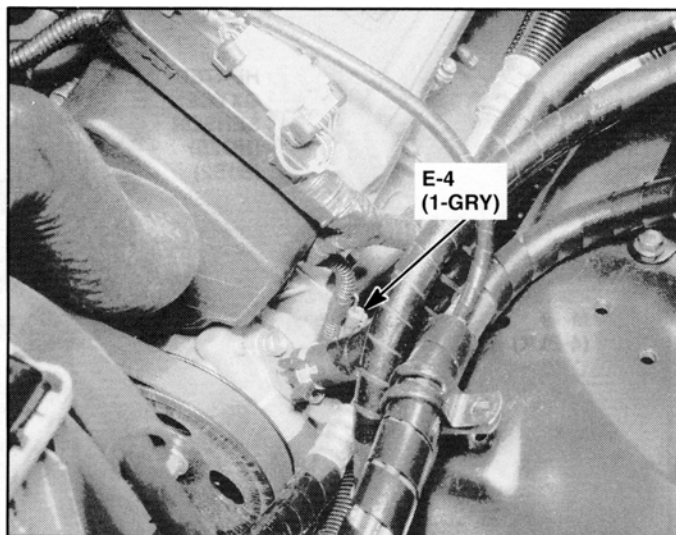
19. Top of Transfer Case (on Table)



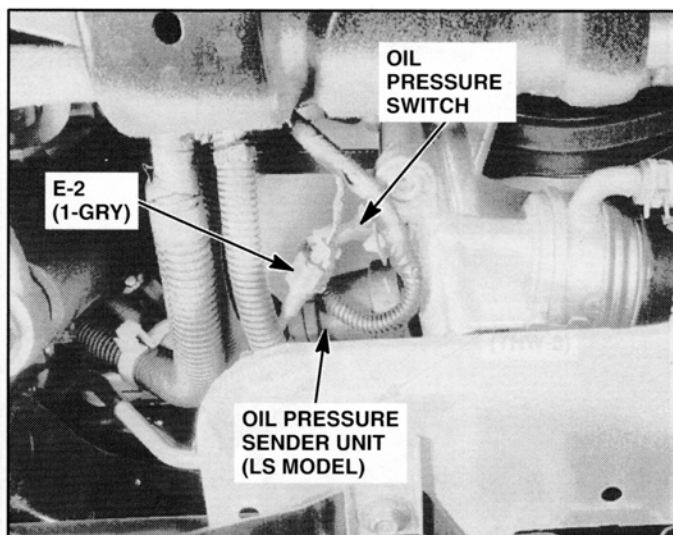
22. Top Front of Engine



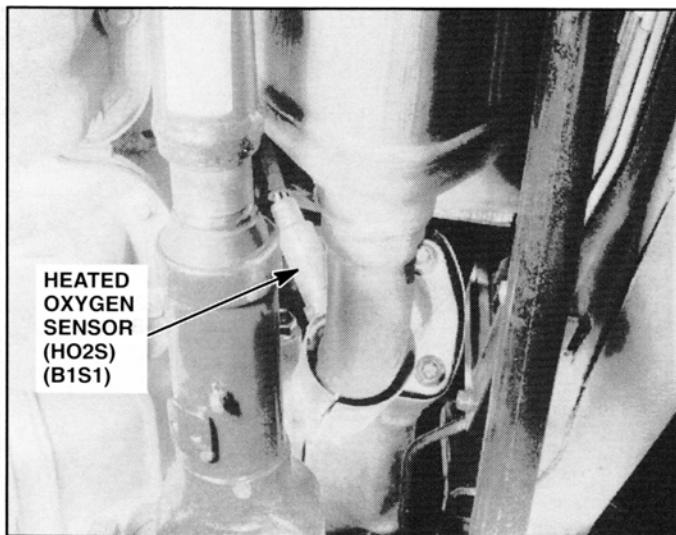
20. Left Front of Engine



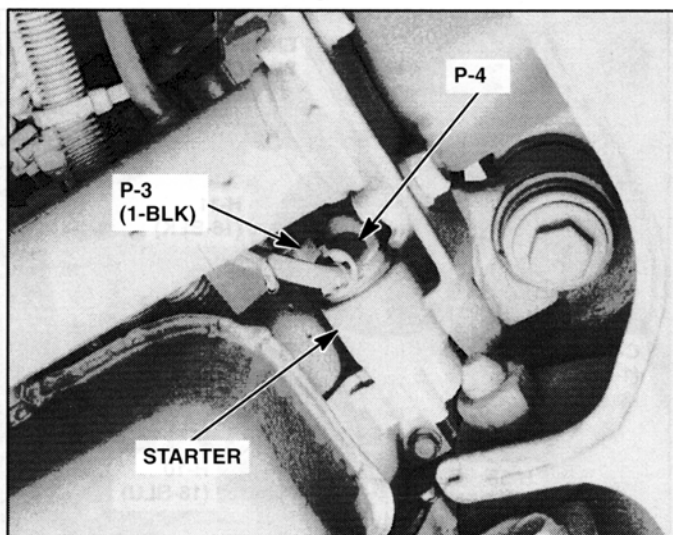
23. Lower Front Center of Engine



21. Right Exhaust Down Pipe

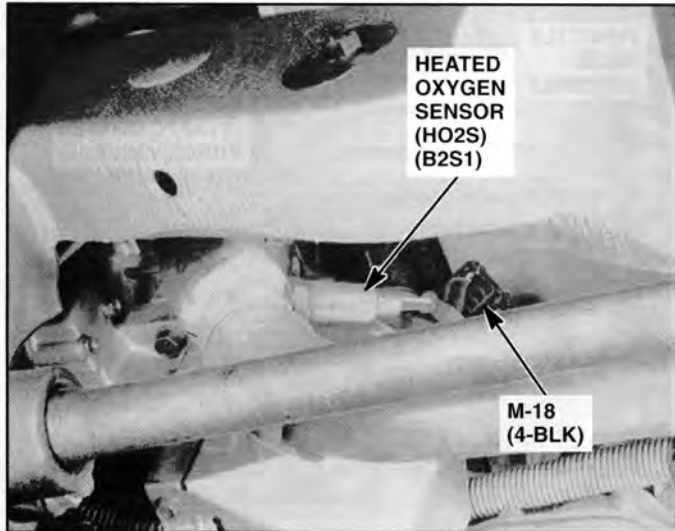


24. Left Underside of Engine

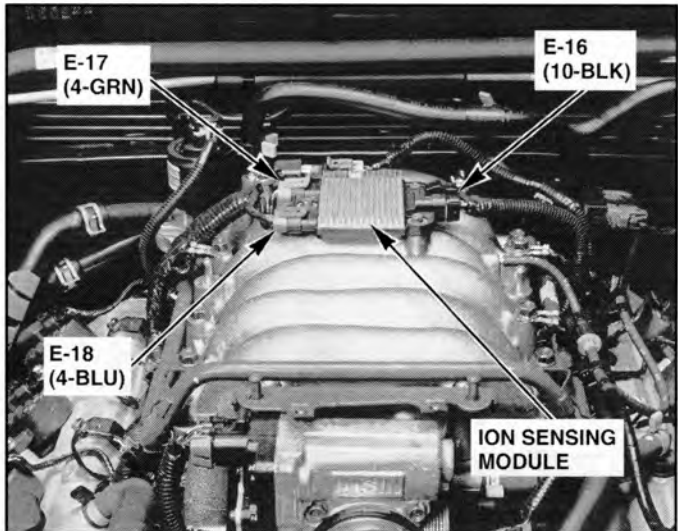


COMPONENT LOCATION PHOTOGRAPHS

25. Left Exhaust Down Pipe



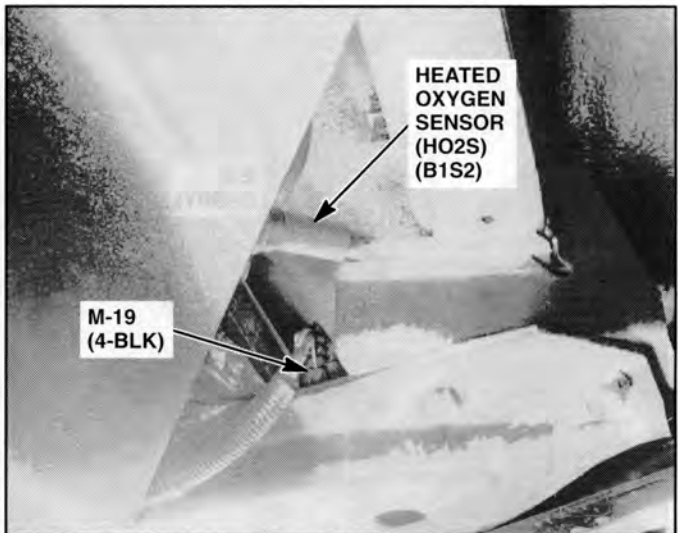
28. Top Rear of Engine



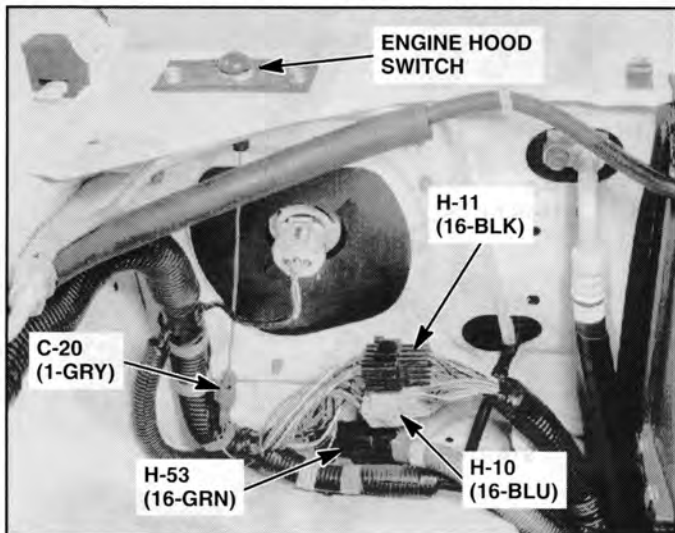
26. Center Front of Roof



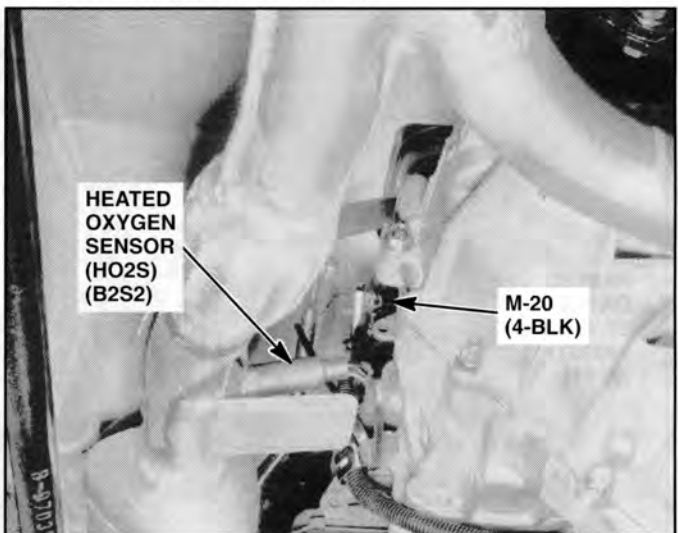
29. Rear of Right Catalytic Converter (A/T)



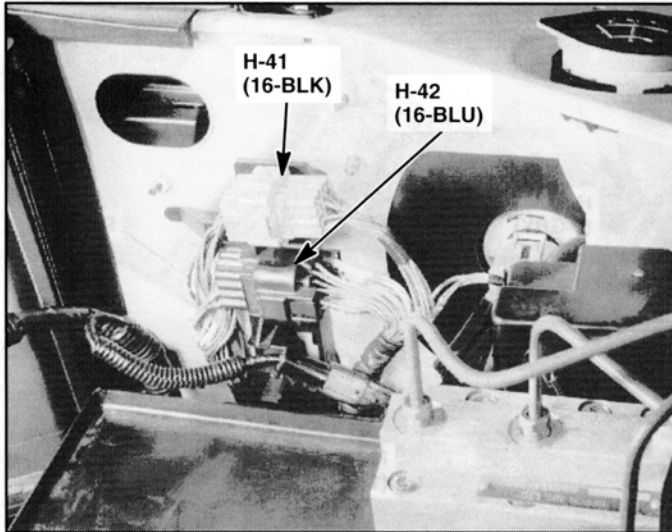
27. Left Front Corner of Engine Compartment



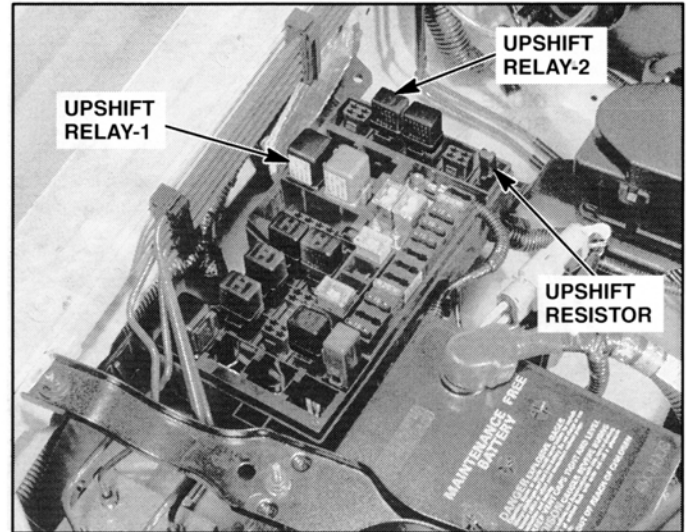
30. Rear of Left Catalytic Converter (A/T Shown, M/T Similar)



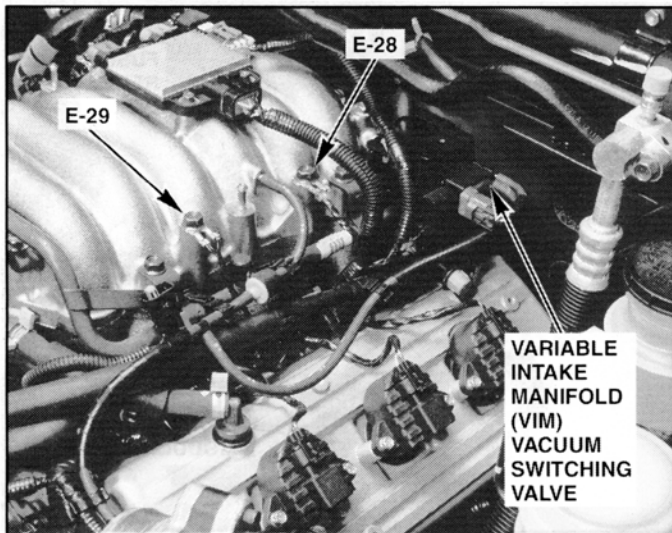
31. Right Front of Engine Compartment



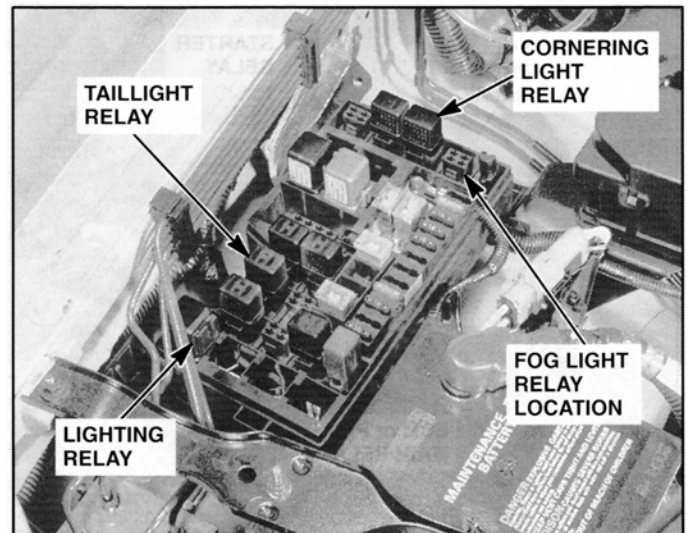
34. Fuse/Relay Box (Cover Removed) (M/T)



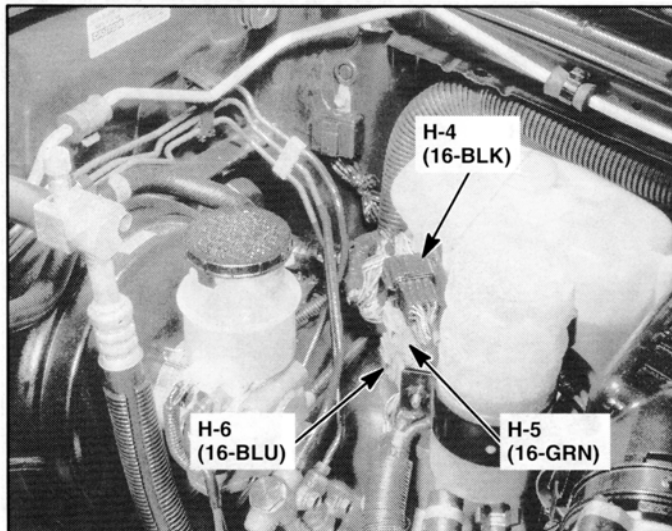
32. Left Side of Engine



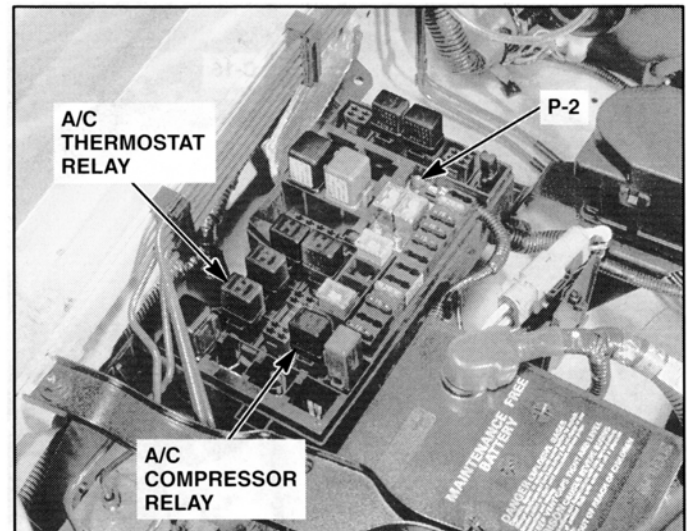
35. Fuse/Relay Box (Cover Removed)



33. Left Rear of Engine Compartment

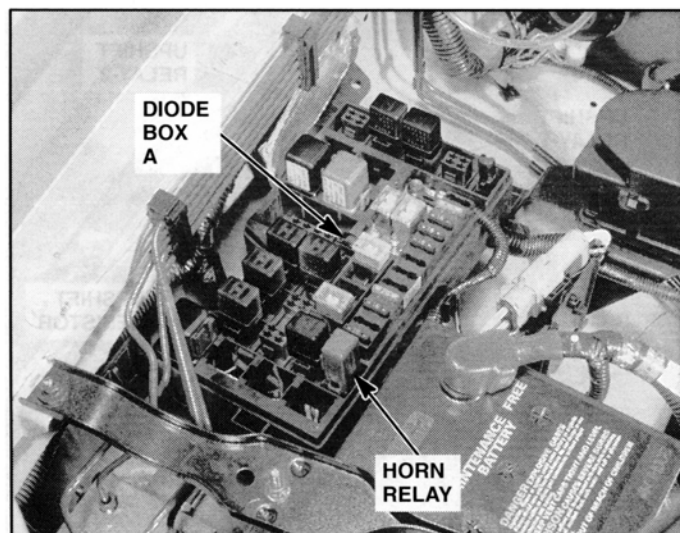


36. Fuse/Relay Box (Cover Removed)

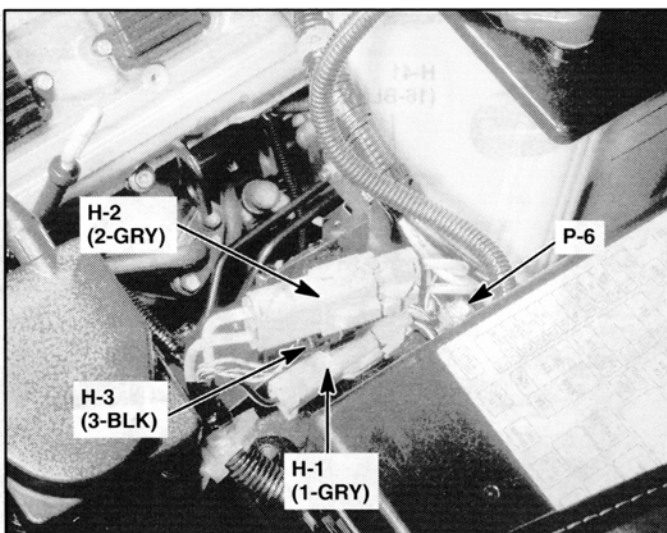


COMPONENT LOCATION PHOTOGRAPHS

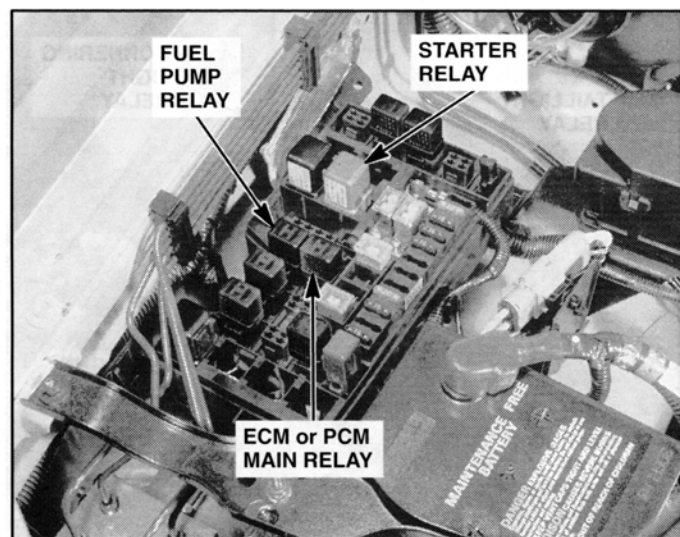
37. Fuse/Relay Box (Cover Removed)



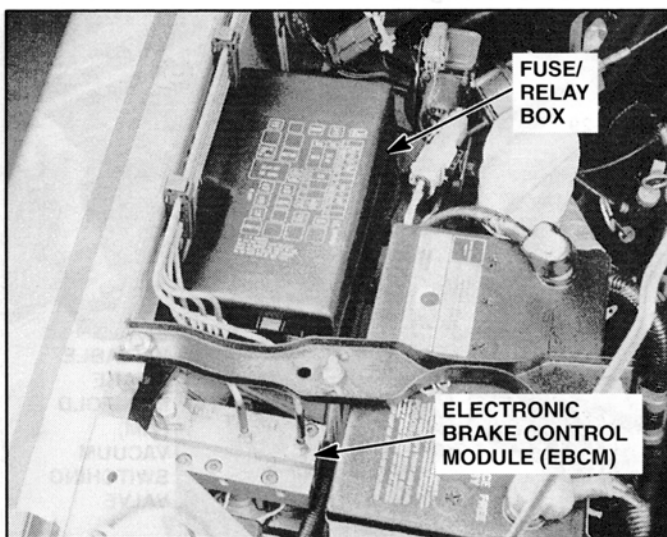
40. Right Side of Engine Compartment



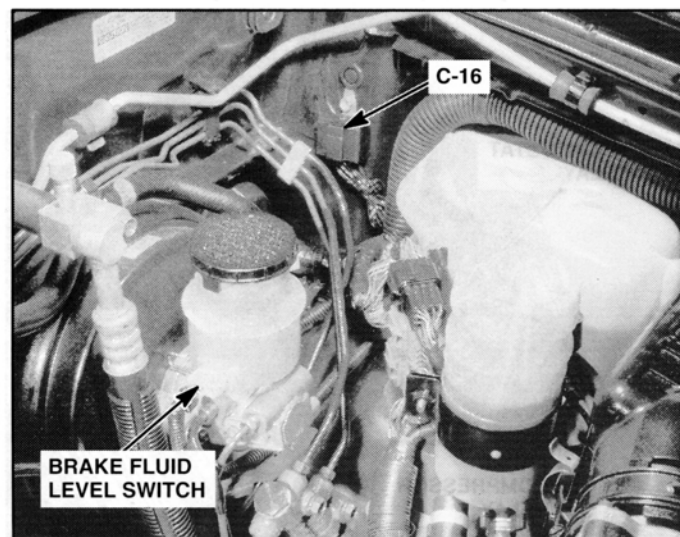
38. Fuse/Relay Box (Cover Removed)



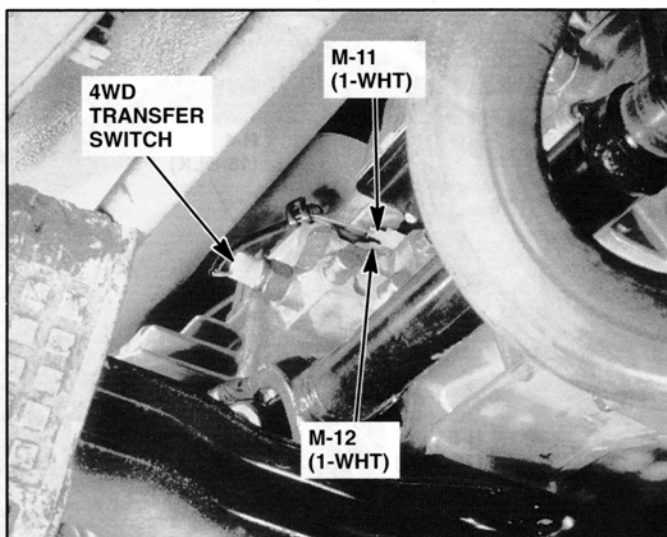
41. Right Side of Engine Compartment



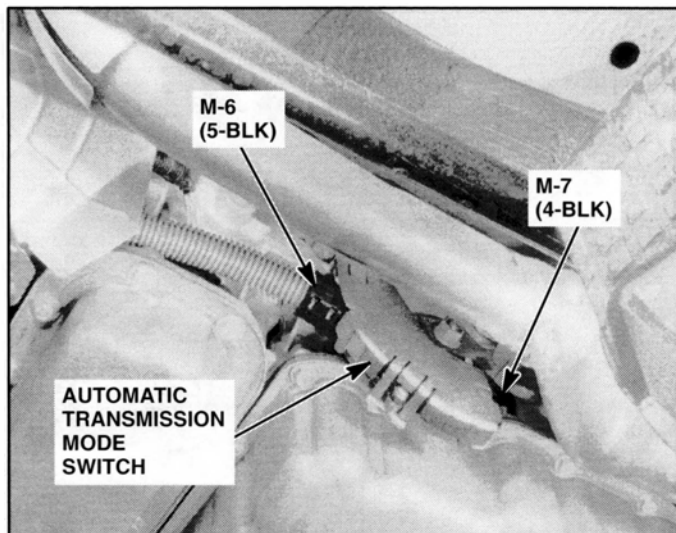
39. Left Rear of Engine Compartment



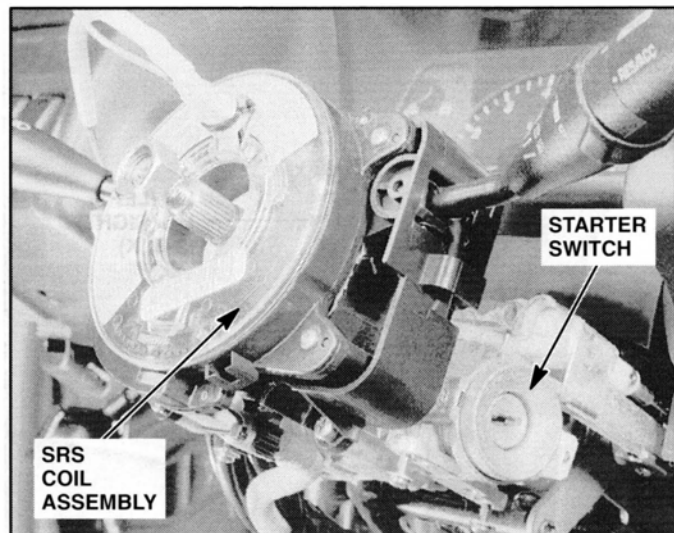
42. Right Side of Transfer Case (M/T)



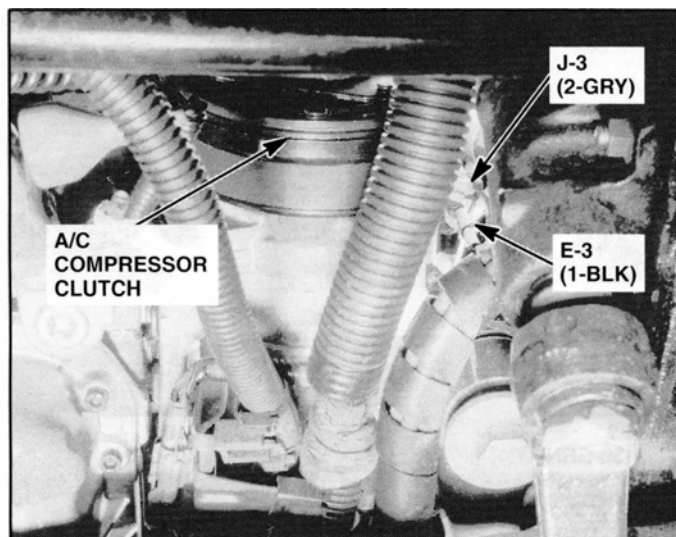
43. Front Left Side of Transmission



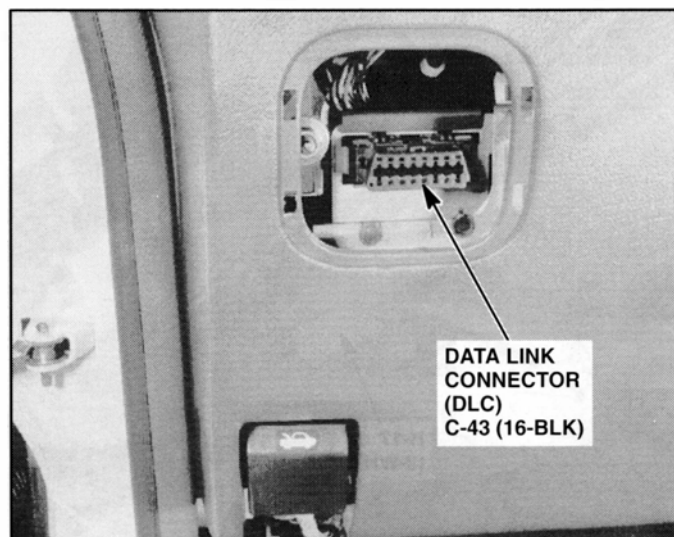
46. Top of Steering Column



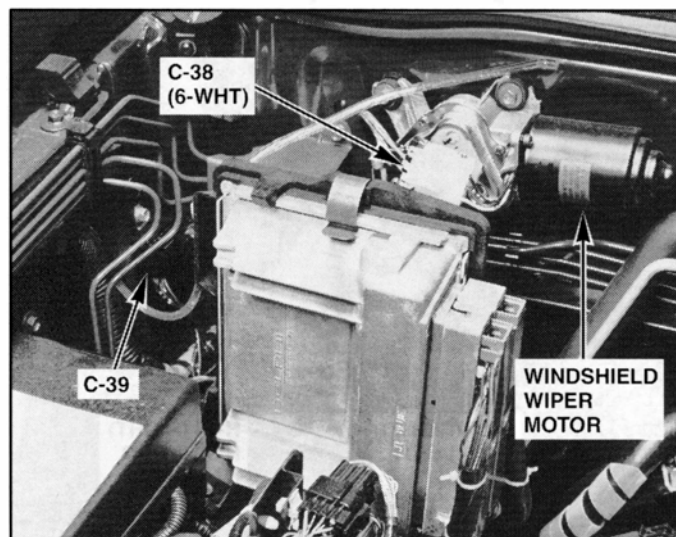
44. Lower Left of Engine



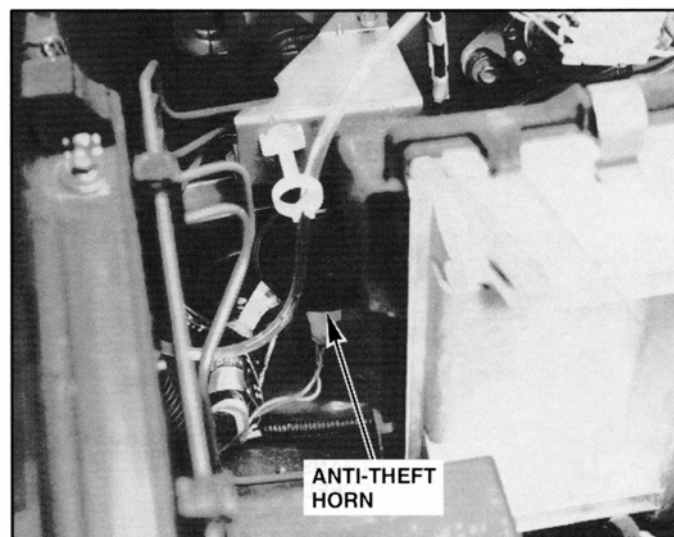
47. Left Side of Dash Panel



45. Right Rear of Engine Compartment

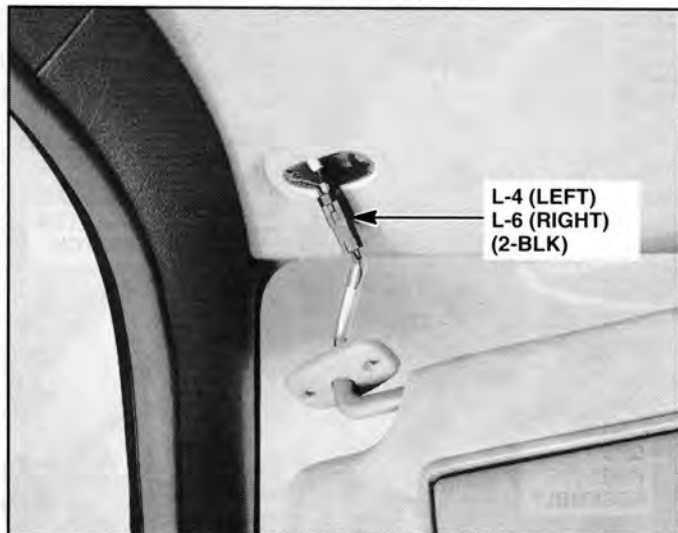


48. Right Rear of Engine Compartment

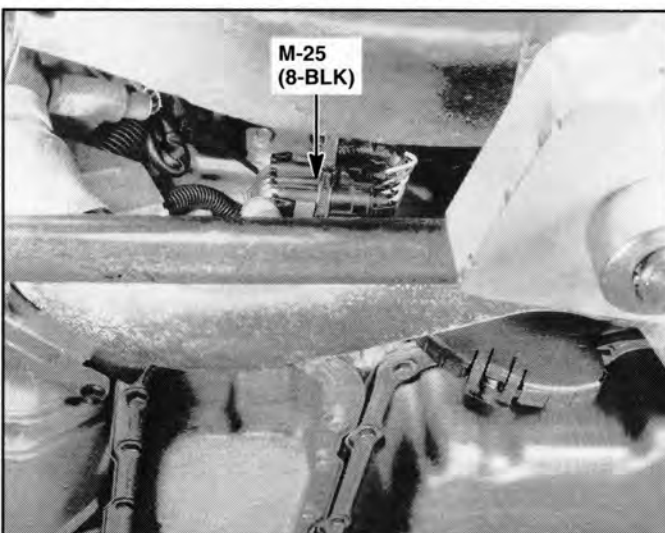


COMPONENT LOCATION PHOTOGRAPHS

49. Above Left Visor (Right Similar)



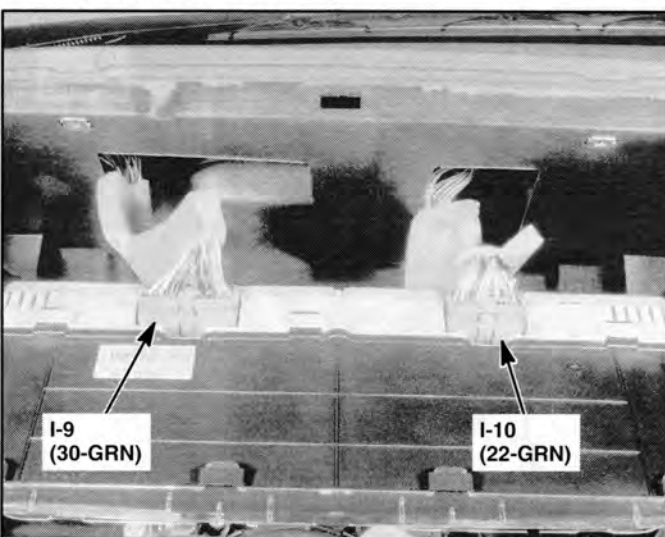
52. Front Left Side of Transmission



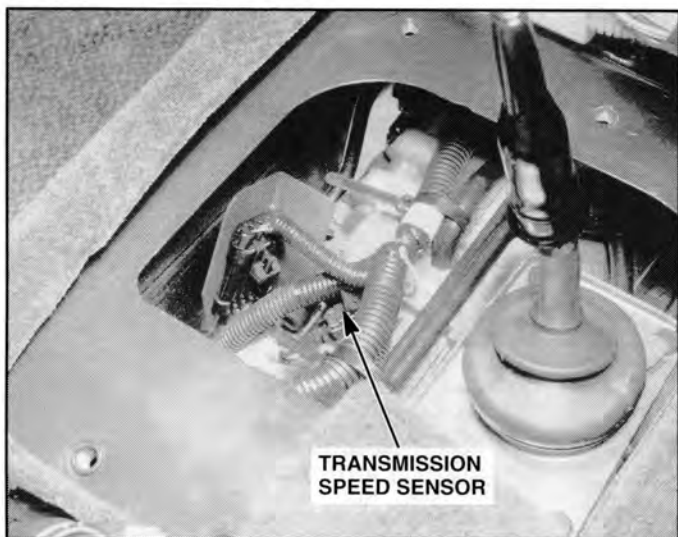
50. Right Side of Third Crossmember



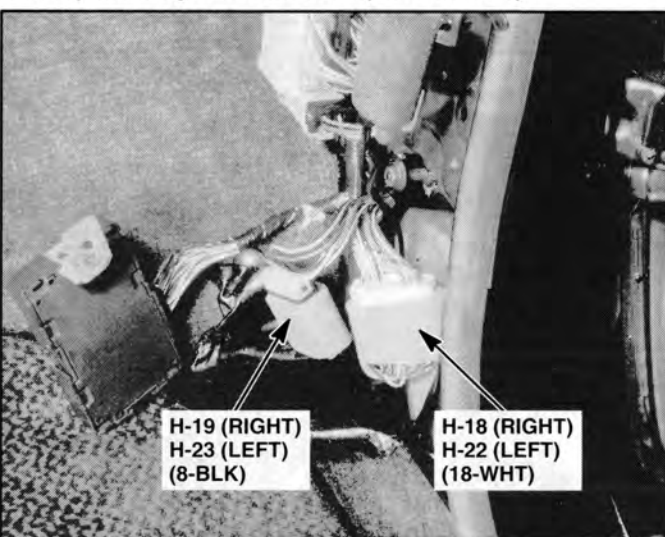
53. Top of Meter Assembly



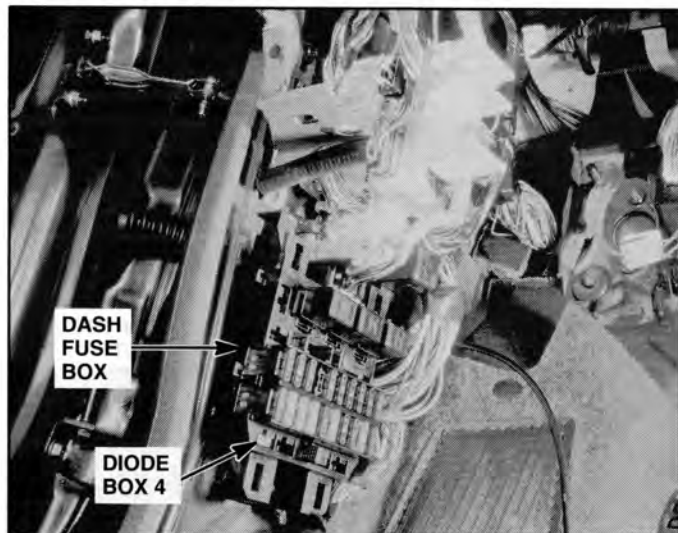
51. Top of Transmission



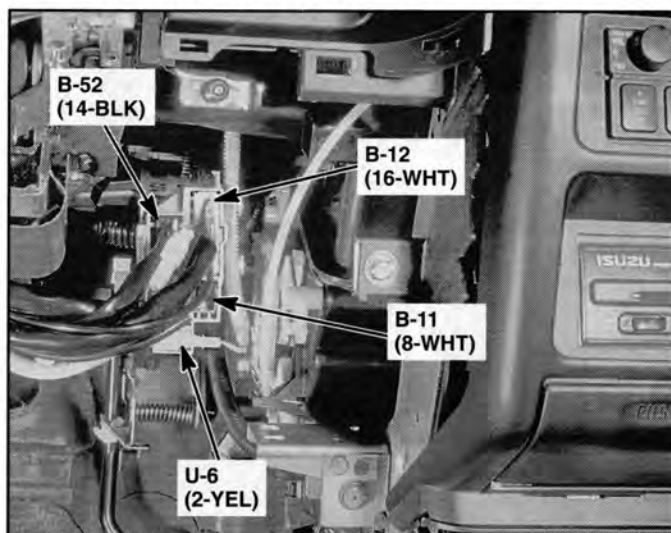
54. Behind Right Kick Panel (Left Similar)



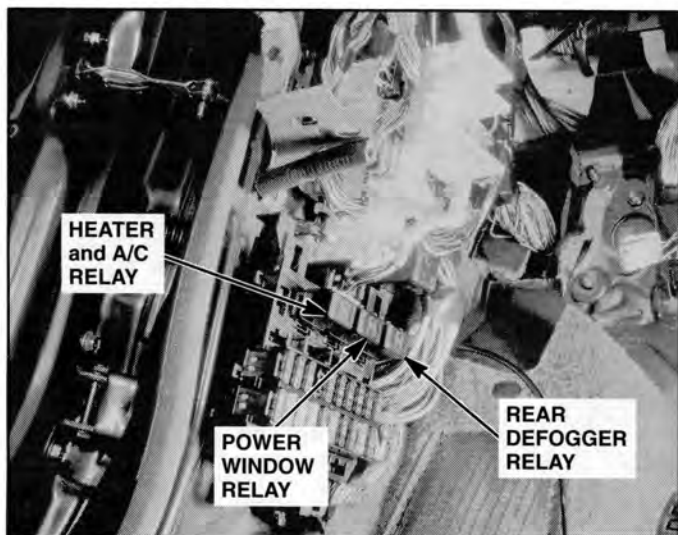
55. Left Kick Panel Area



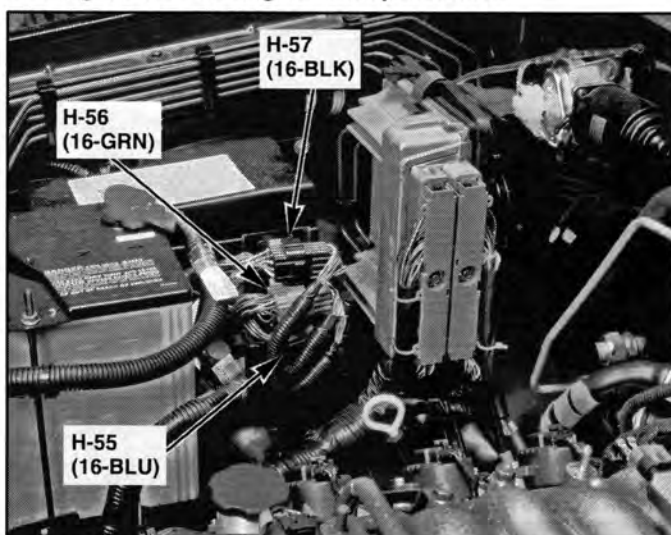
58. Behind Lower Left Dash Panel



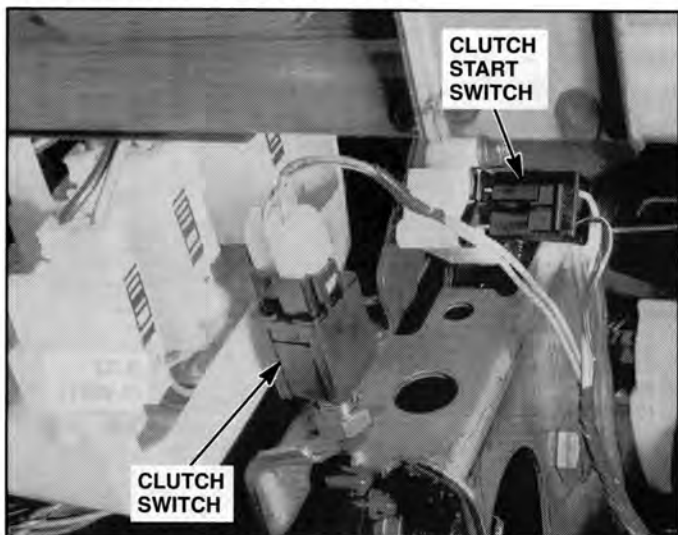
56. Left Kick Panel Area



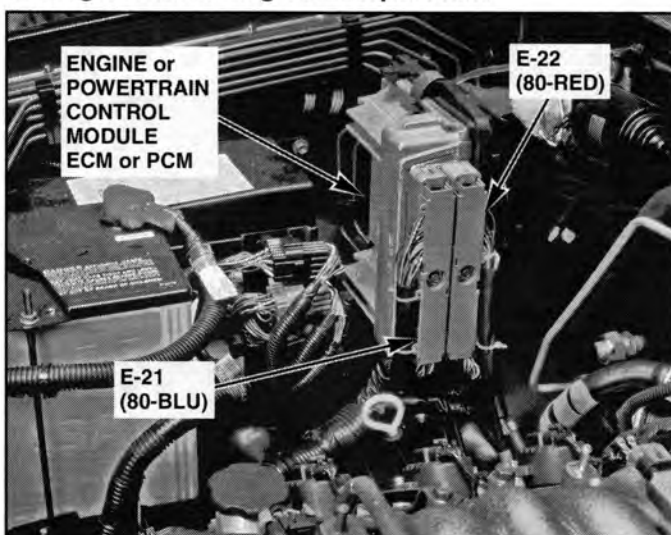
59. Right Rear of Engine Compartment



57. Behind Lower Left Dash Panel



60. Right Rear of Engine Compartment

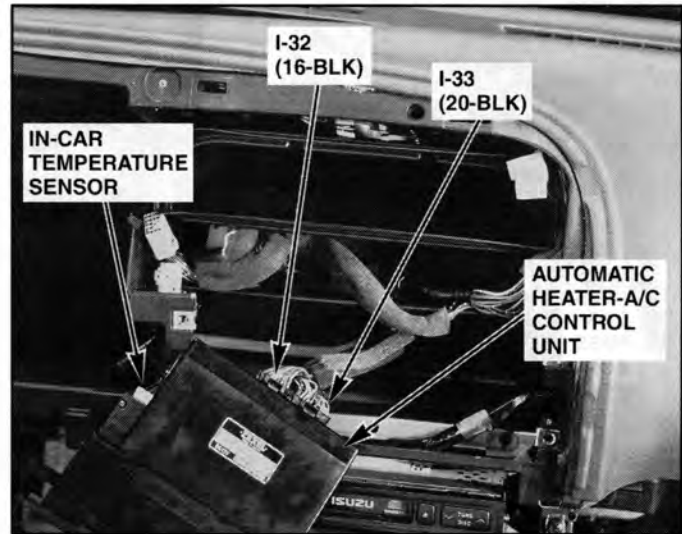


COMPONENT LOCATION PHOTOGRAPHS

61. Behind Front Console



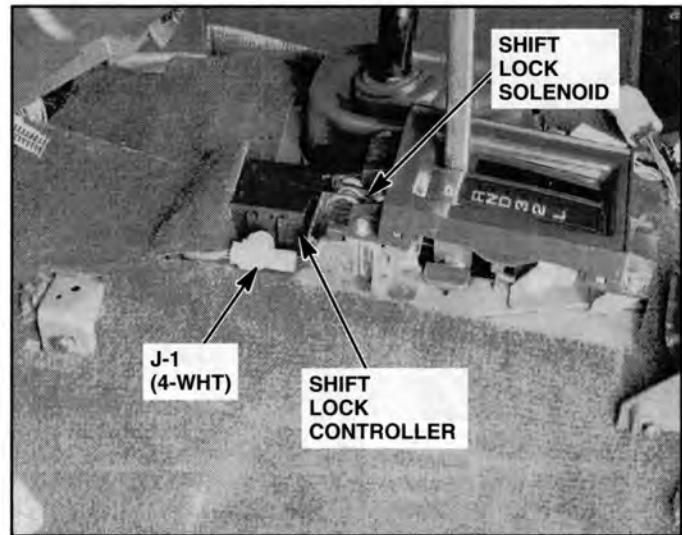
64. Center of Dash



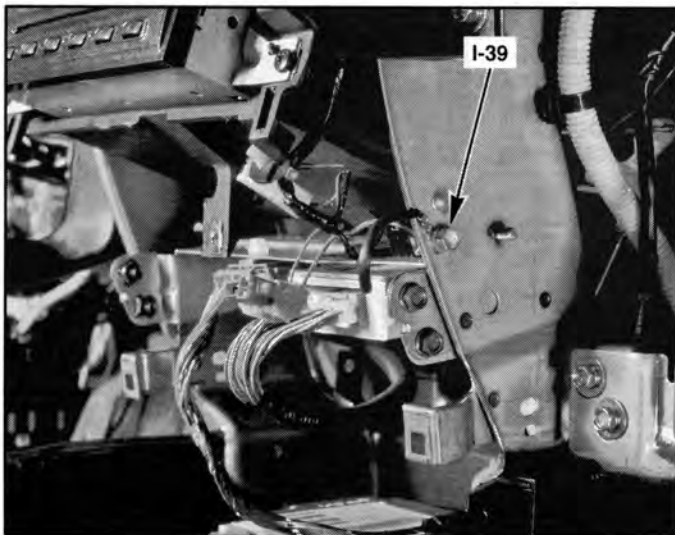
62. Behind Front Console



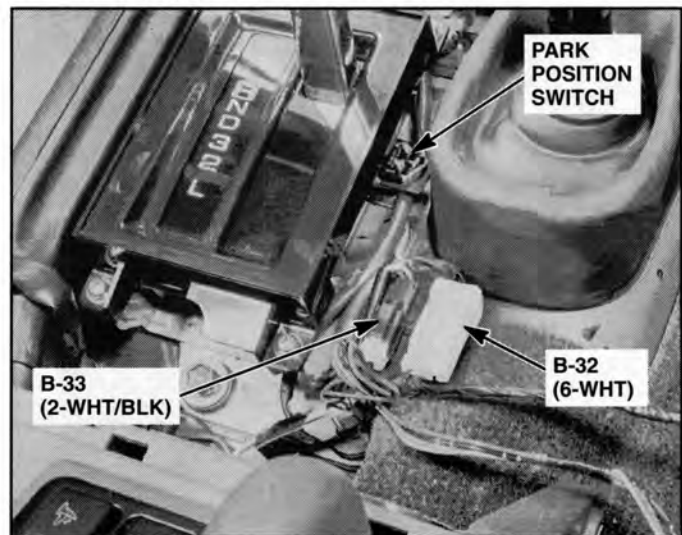
65. Below Left Side of Front Console



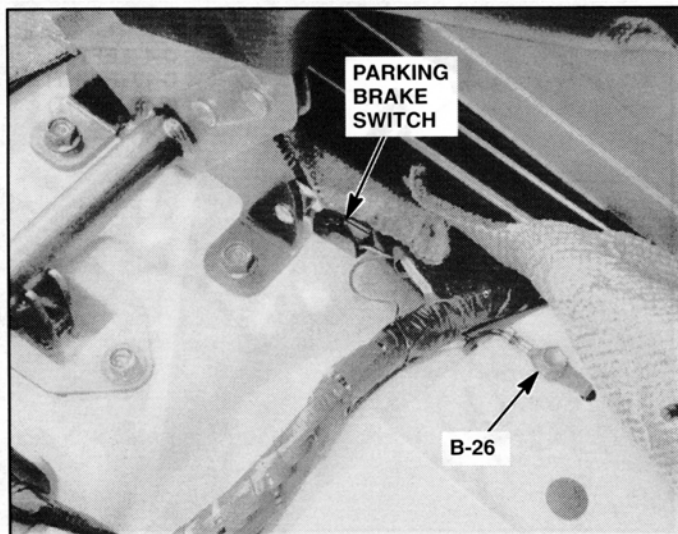
63. Behind Front Console



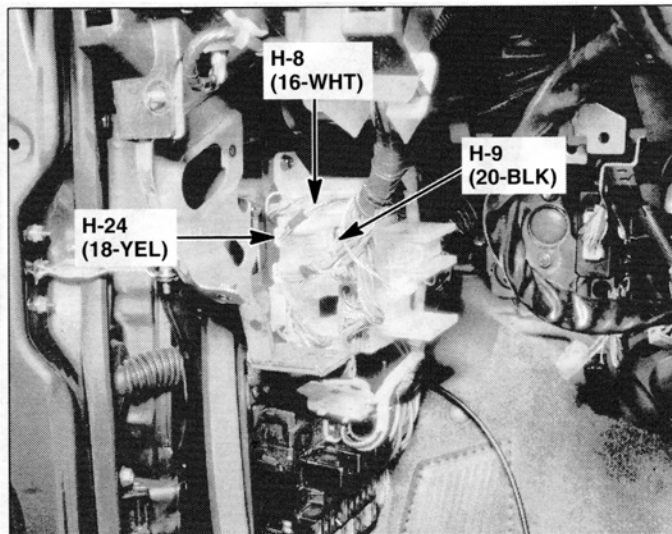
66. Below Right Side of Front Console



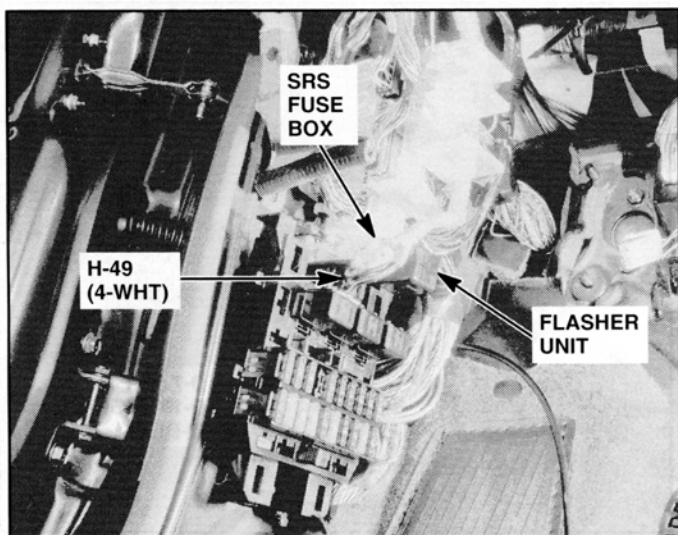
67. Below Center Console



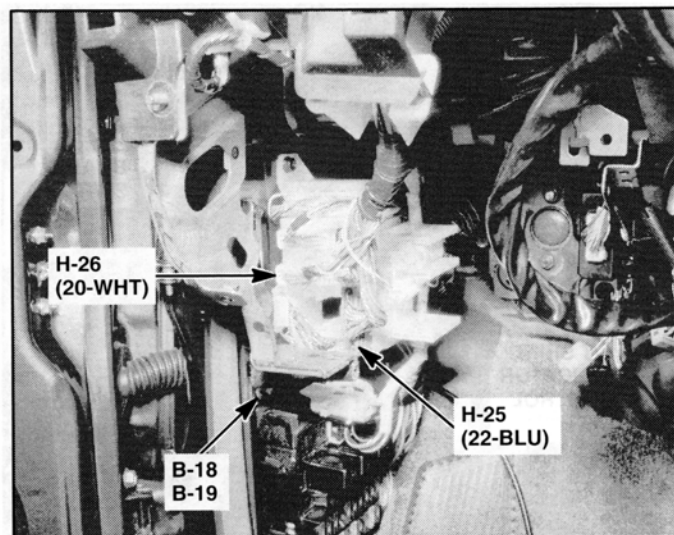
70. Behind Lower Left Dash Panel



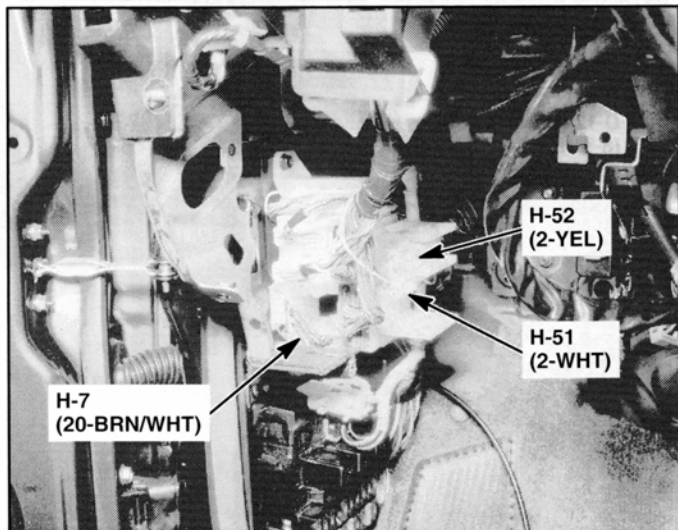
68. Left Kick Panel Area



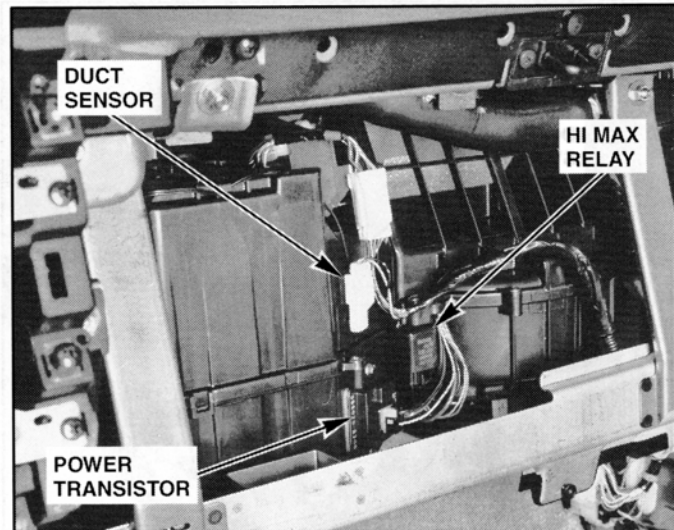
71. Behind Lower Left Dash Panel



69. Behind Lower Left Dash Panel

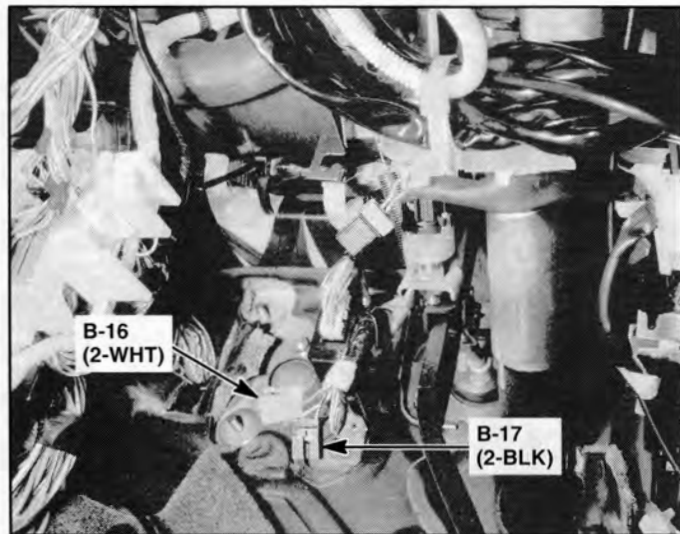


72. Below Right Side of Dash



COMPONENT LOCATION PHOTOGRAPHS

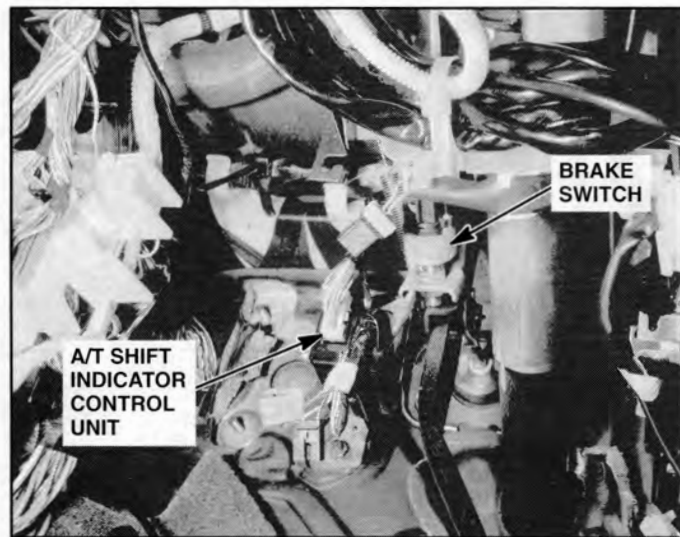
73. Behind Lower Left Dash Panel



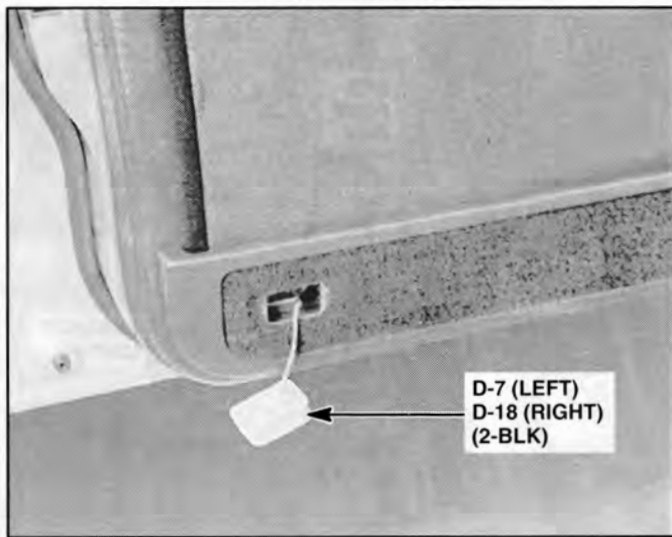
76. Left Front Door (Right Similar)



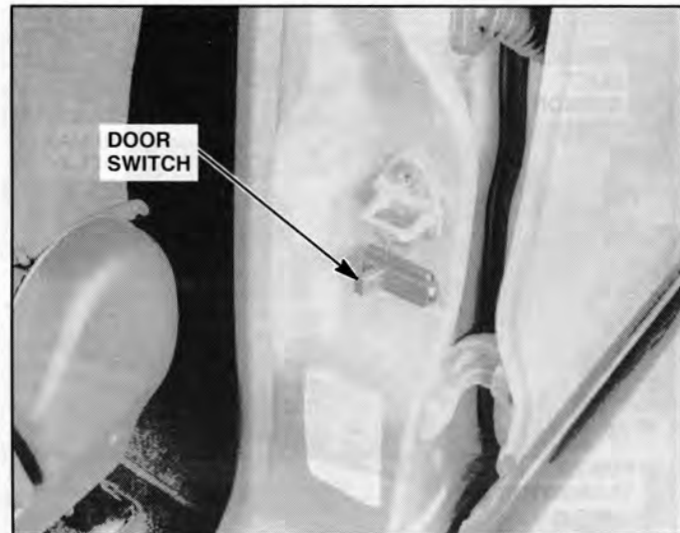
74. Behind Lower Left Dash Panel



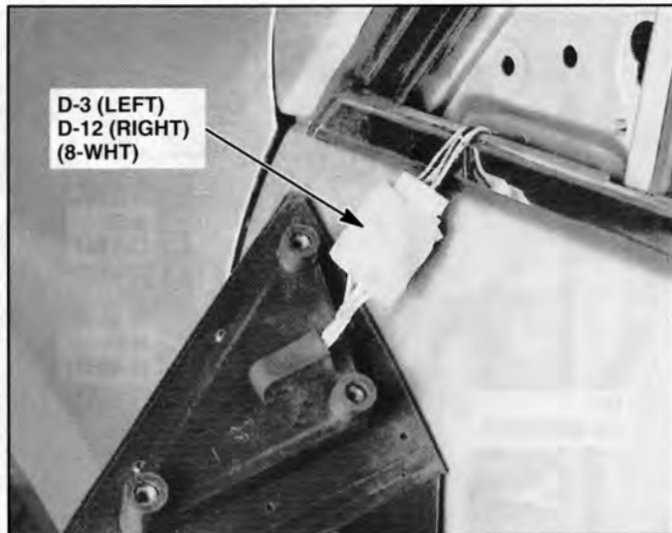
77. Left Front Door (Right Similar)



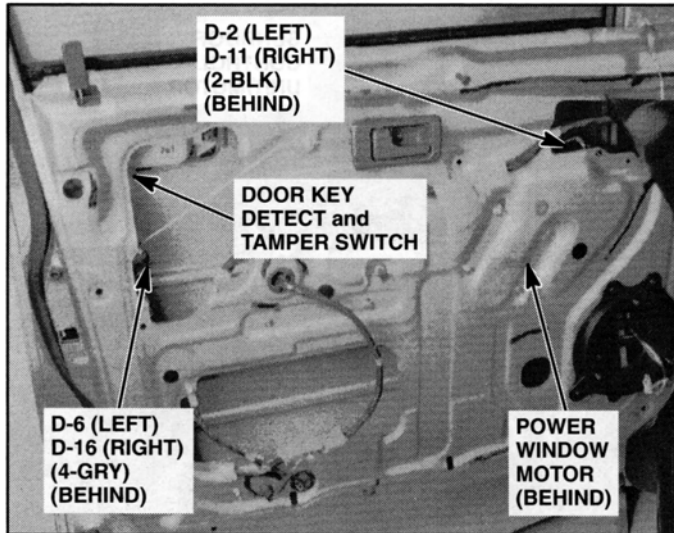
75. Near Left Front Door Striker (Right Similar)



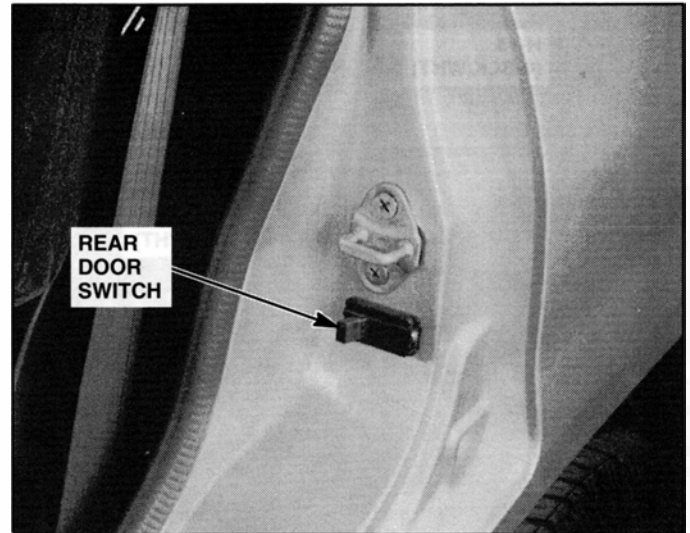
78. Behind Left Front Door Mirror (Right Similar)



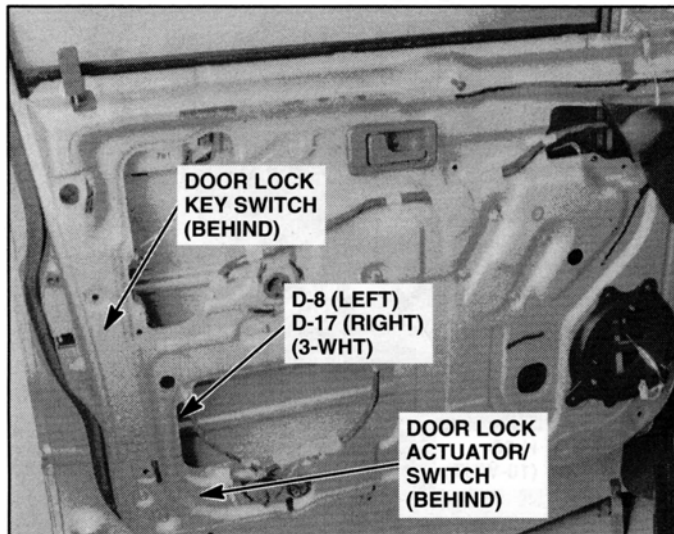
79. Left Front Door (Right Similar)



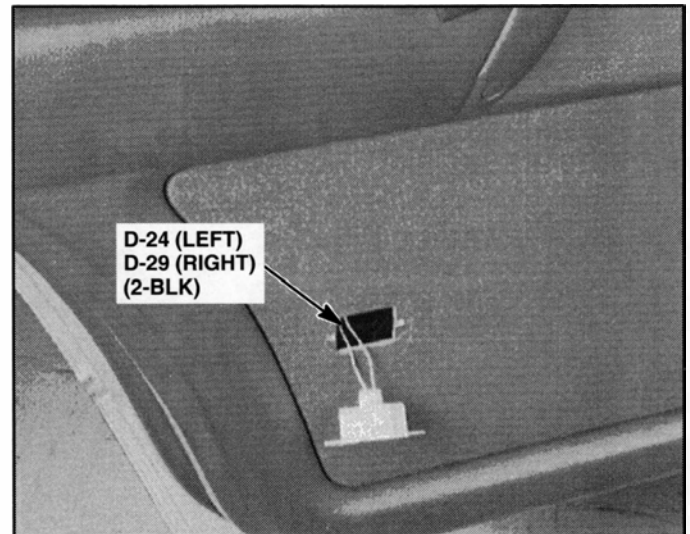
82. Near Left Rear Door Striker (Right Similar)



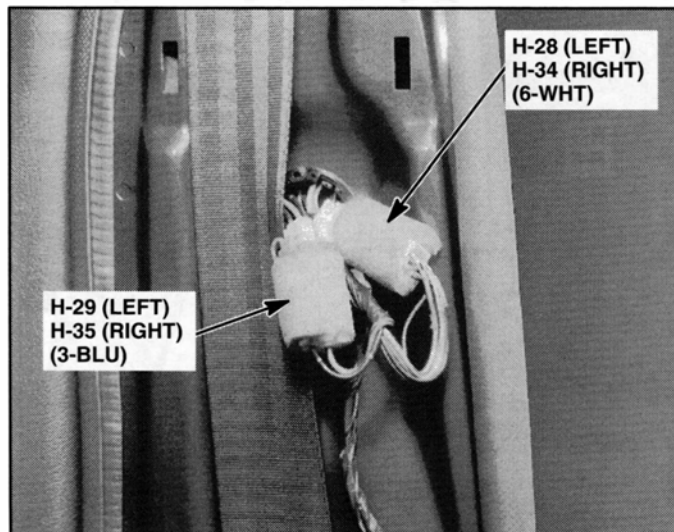
80. Left Front Door (Right Similar)



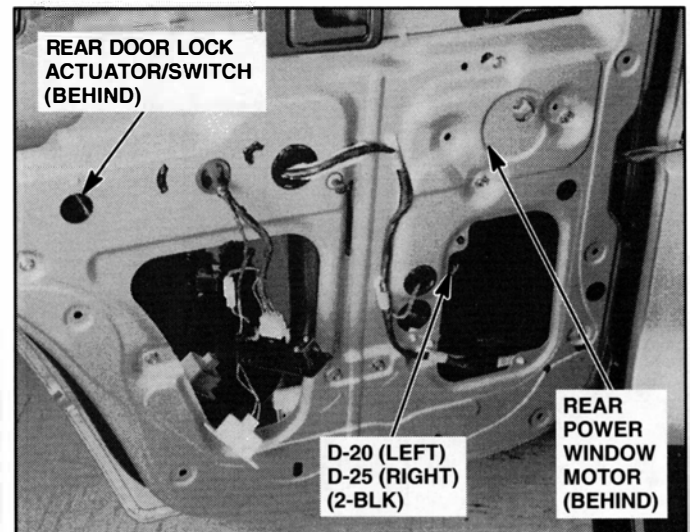
83. Left Rear Door (Right Similar)



81. Left Center Pillar (Right Similar)

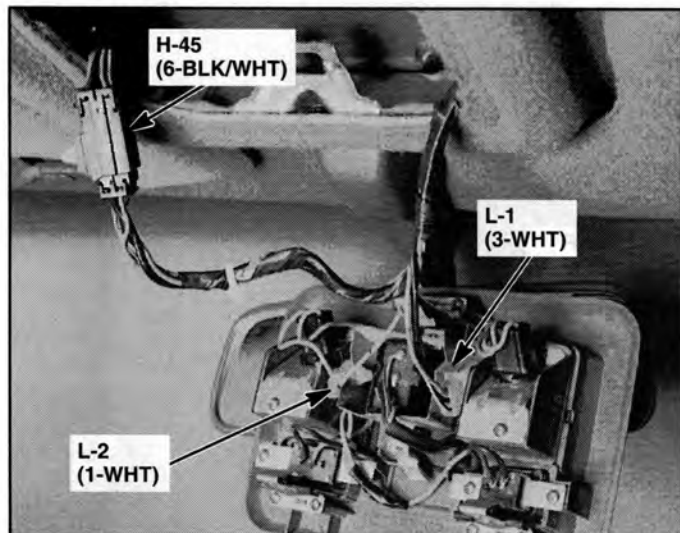


84. Left Rear Door (Right Similar)

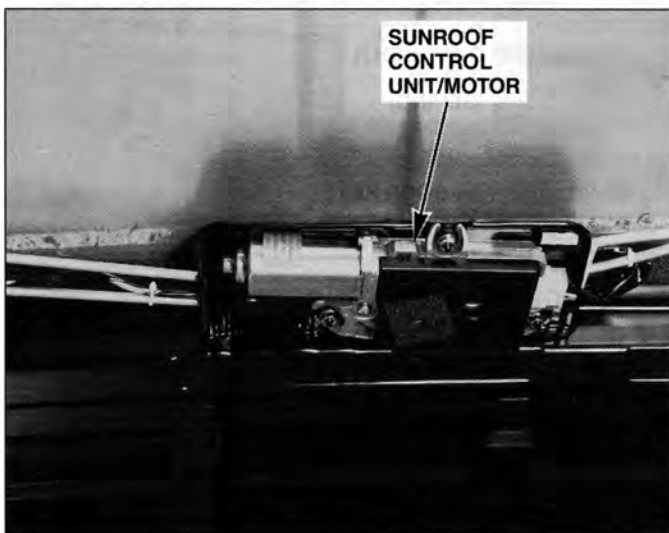


COMPONENT LOCATION PHOTOGRAPHS

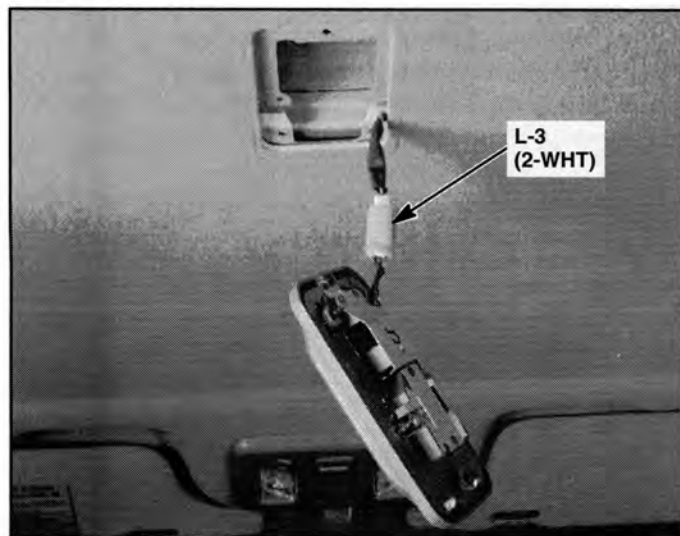
85. Center Front of Roof



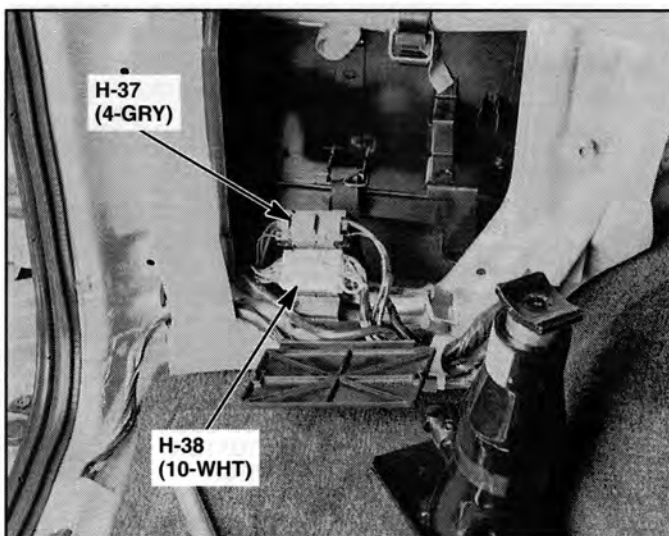
88. Rear of Roof



86. Center of Roof



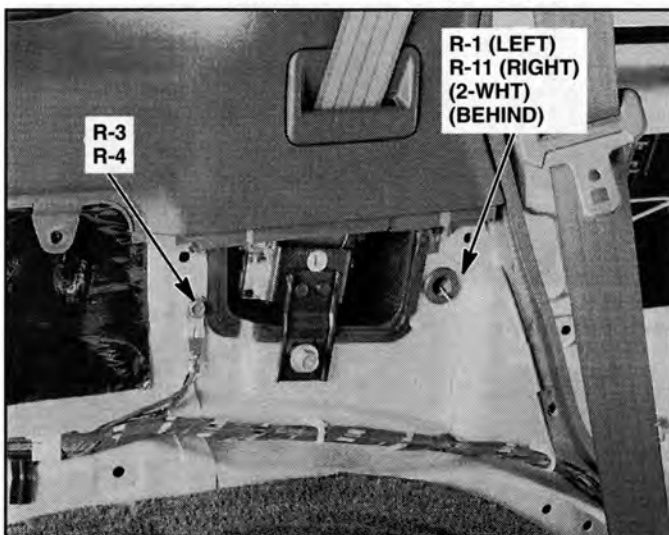
89. Left Rear of Luggage Room



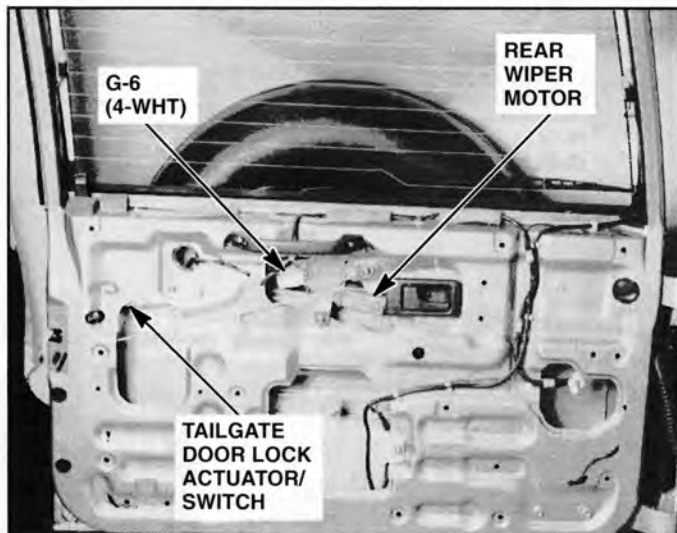
87. Center Rear of Roof



90. Left Side of Luggage Room (Right Similar)



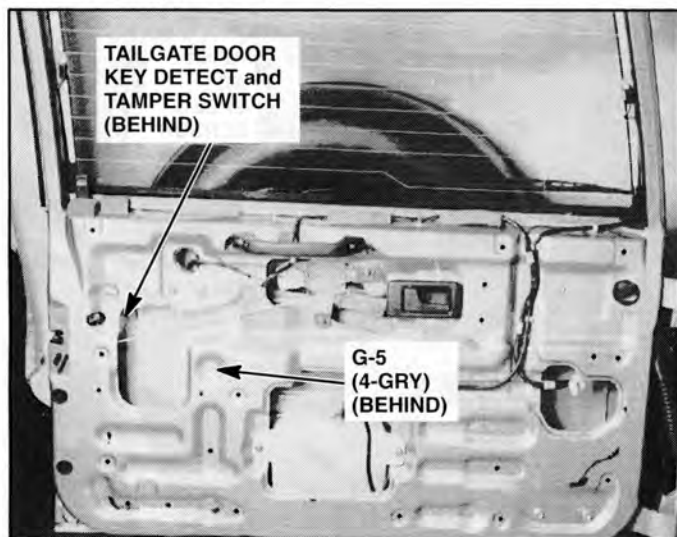
91. Left Tailgate Door



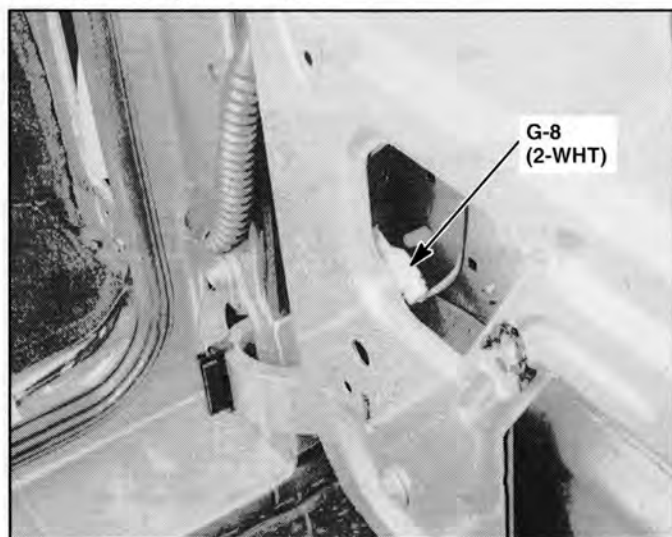
94. Center Rear of Luggage Room Floor



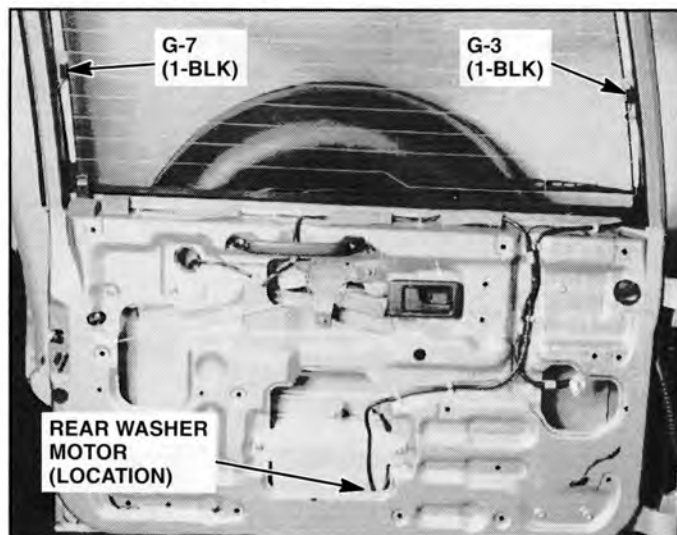
92. Left Tailgate Door



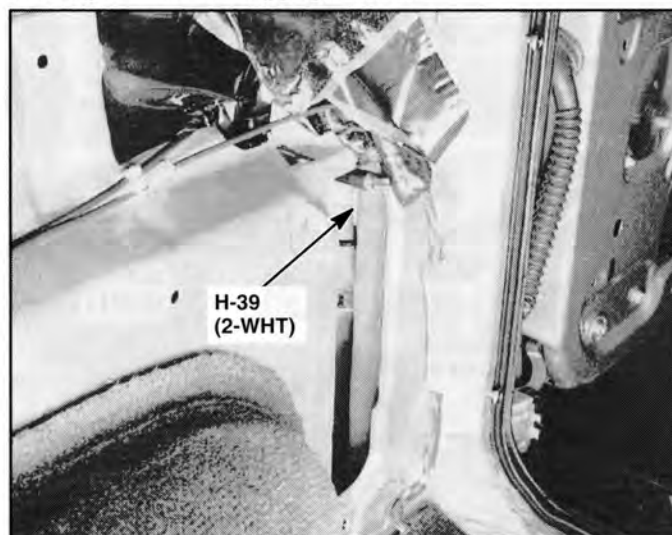
95. Right Tailgate Door



93. Left Tailgate Door

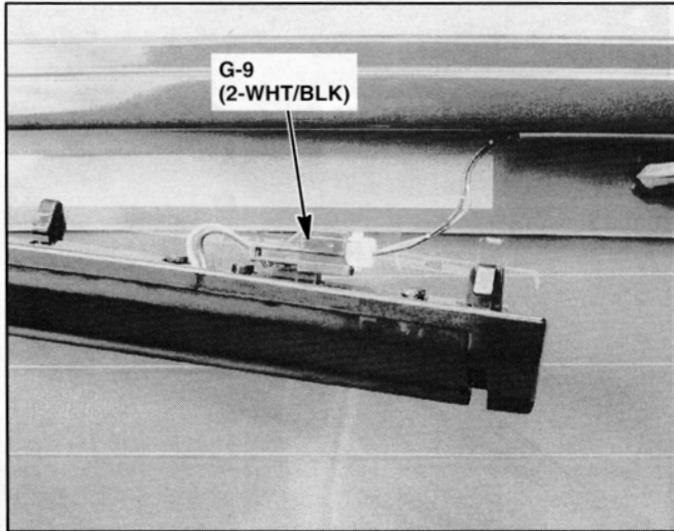


96. Right Rear of Luggage Room

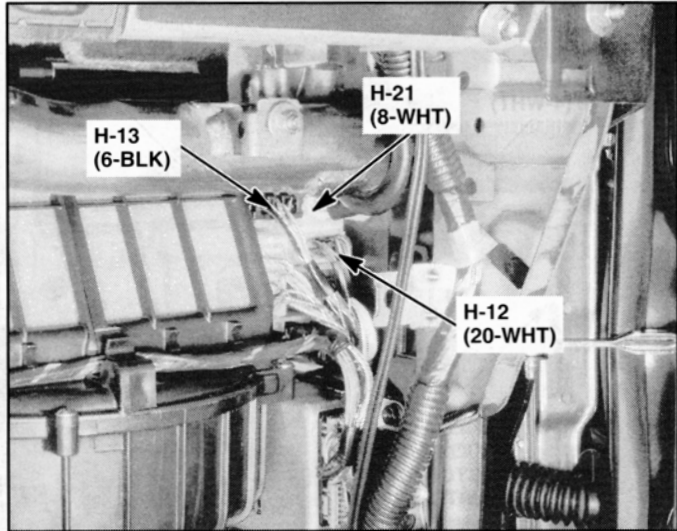


COMPONENT LOCATION PHOTOGRAPHS

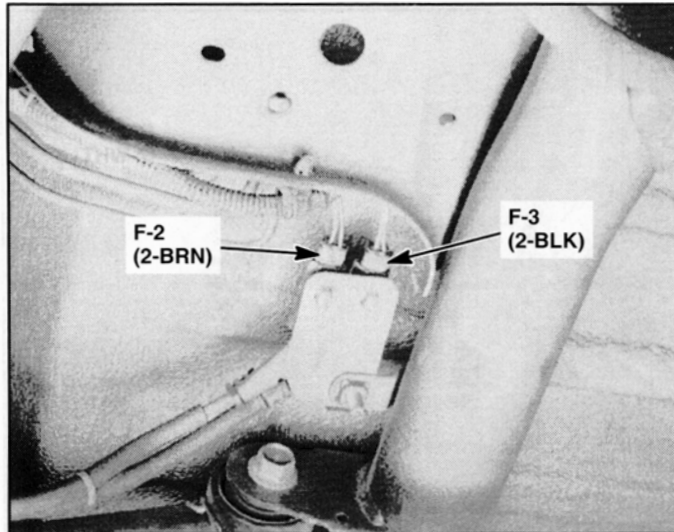
97. Top of Left Tailgate Door



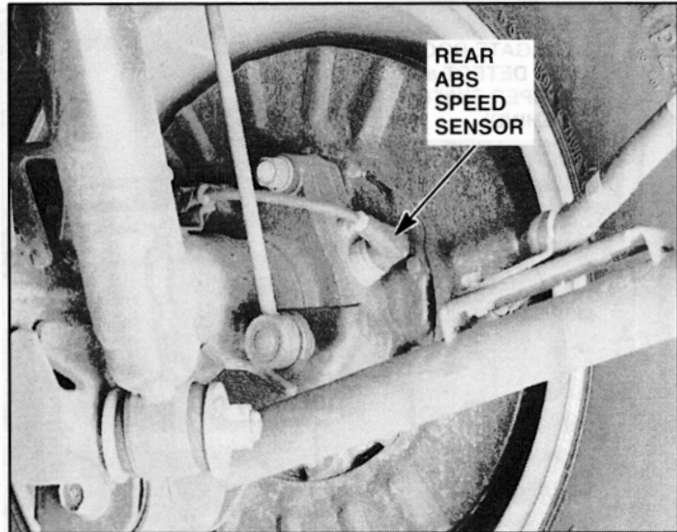
100. Behind Right Side of Dash



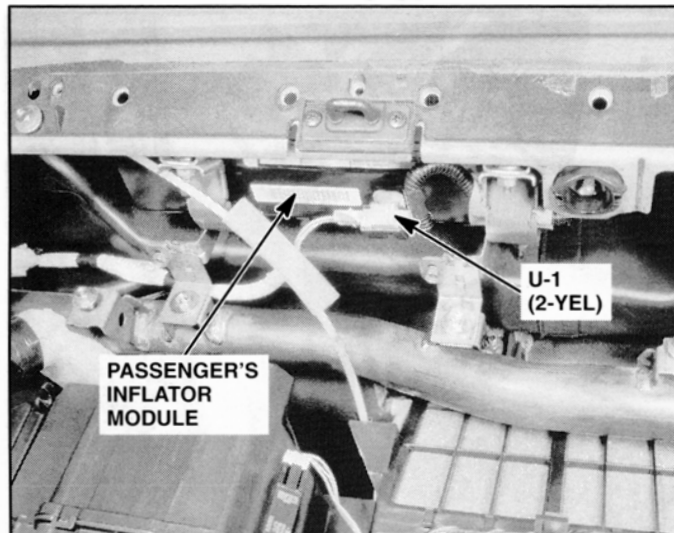
98. Right Rear Underside of Vehicle



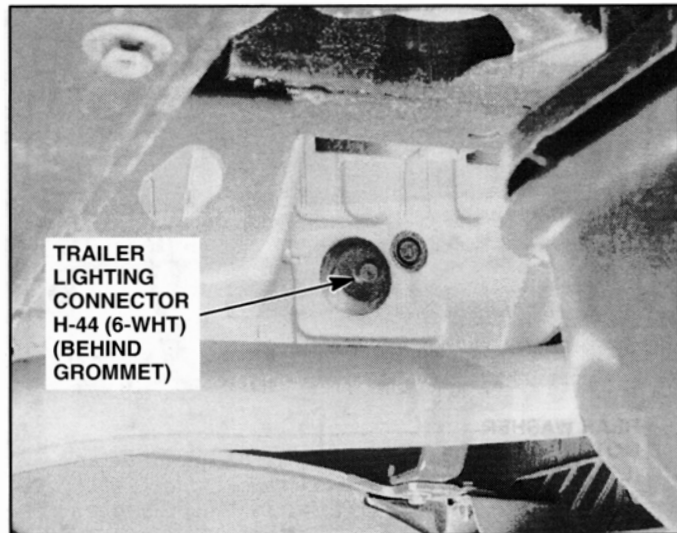
101. Inside of Left Rear Wheel (Right Similar)



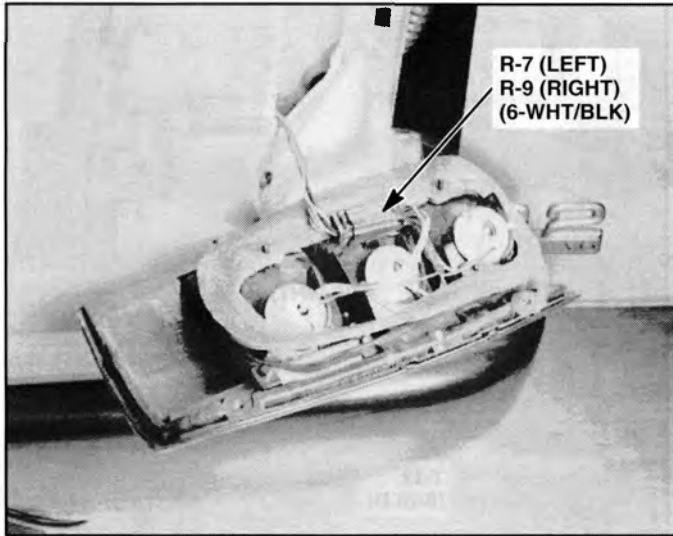
99. Above Glove Box



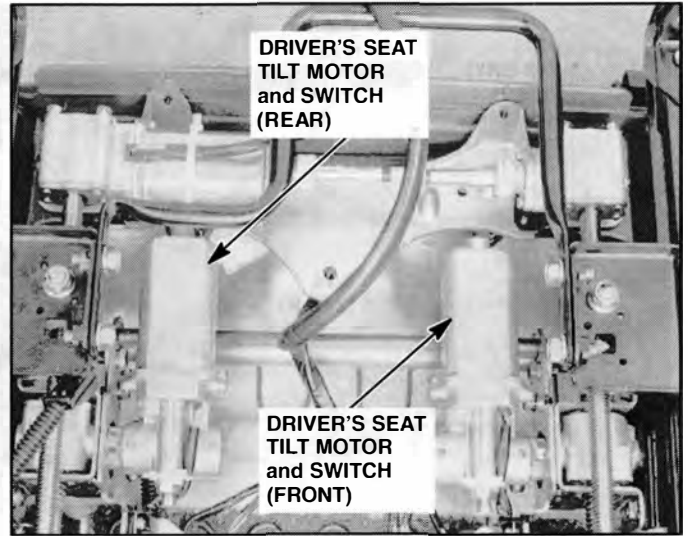
102. Left Rear Corner Underside of Vehicle



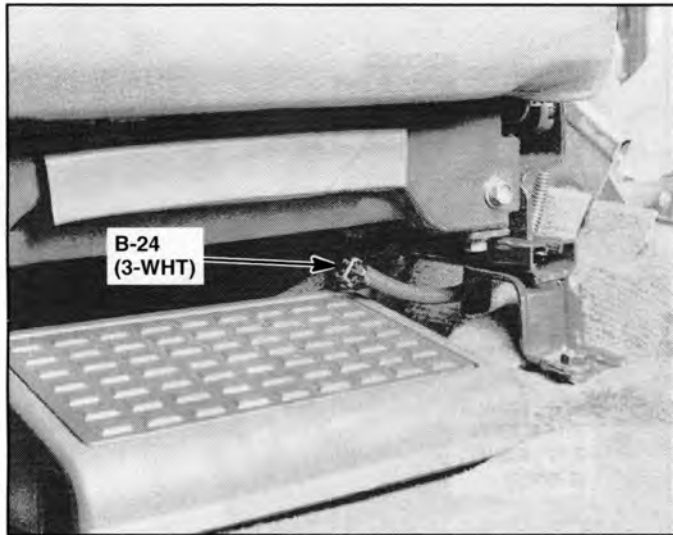
103. Left Rear of Vehicle (Right Similar)



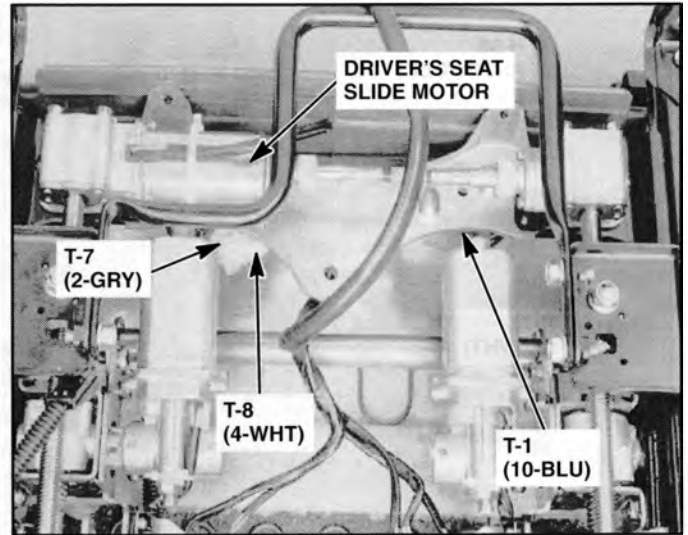
106. Underside of Driver's Seat



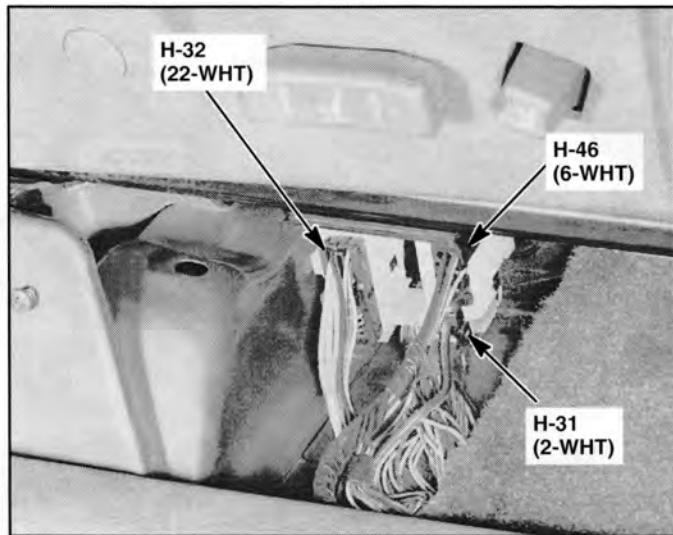
104. Below Driver's Seat



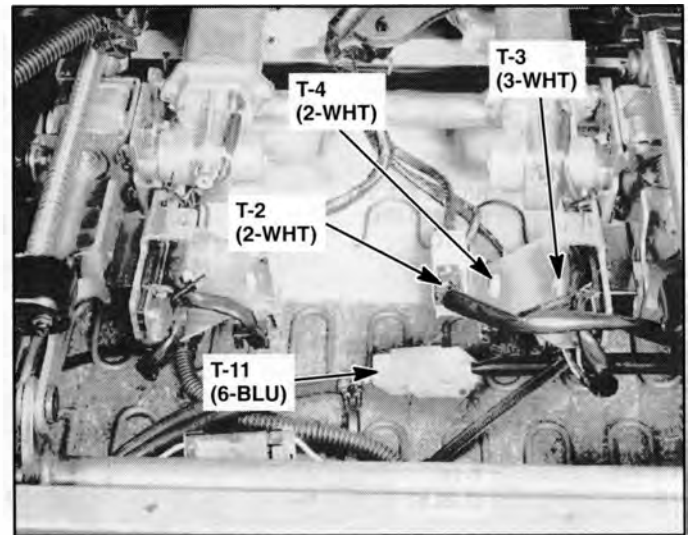
107. Underside of Driver's Seat



105. Below Driver's Seat

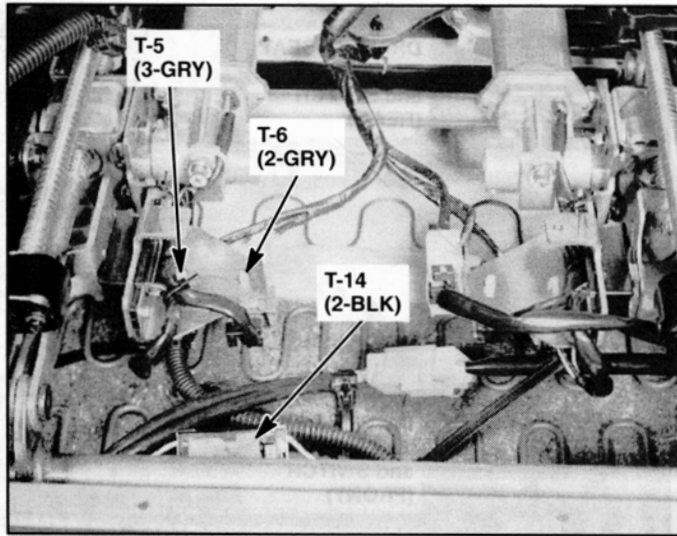


108. Underside of Driver's Seat

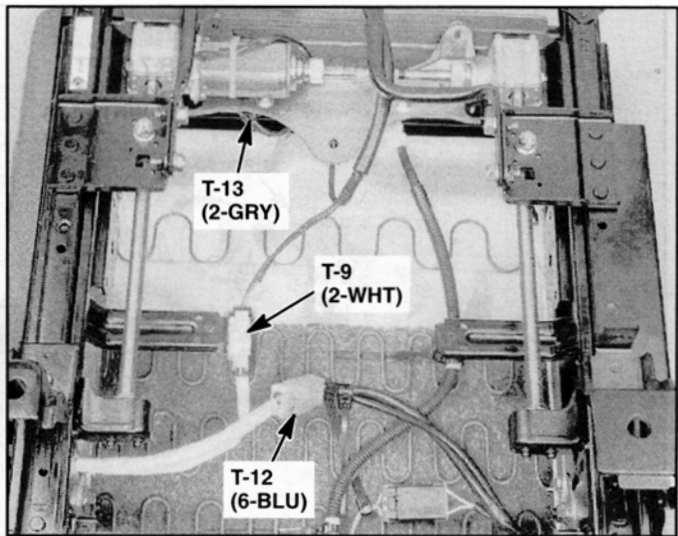


COMPONENT LOCATION PHOTOGRAPHS

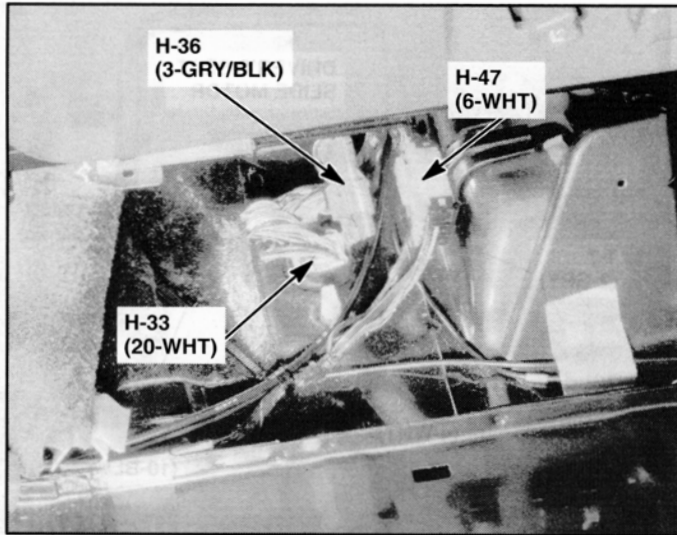
109. Underside of Driver's Seat



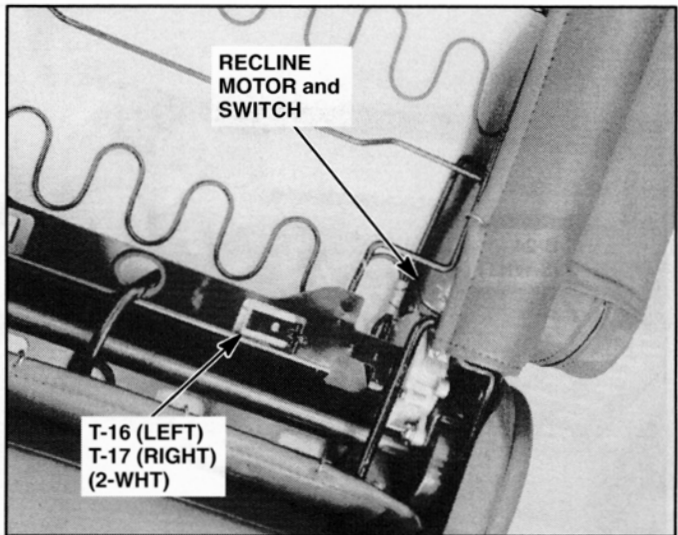
112. Underside of Right Front Seat



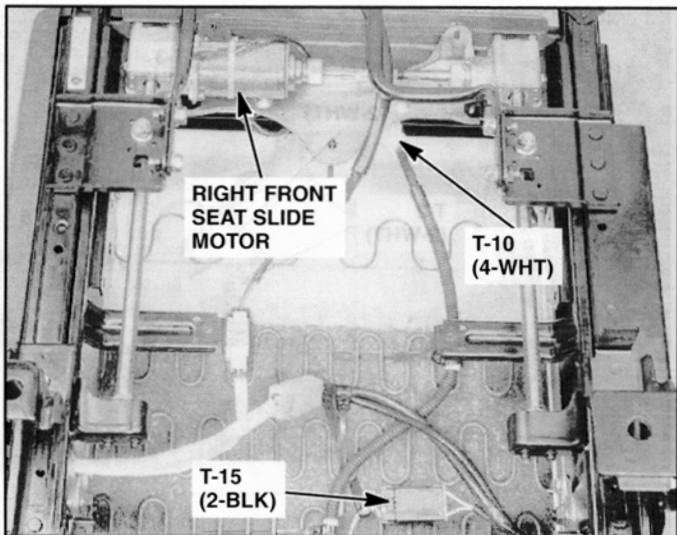
110. Below Right Front Seat



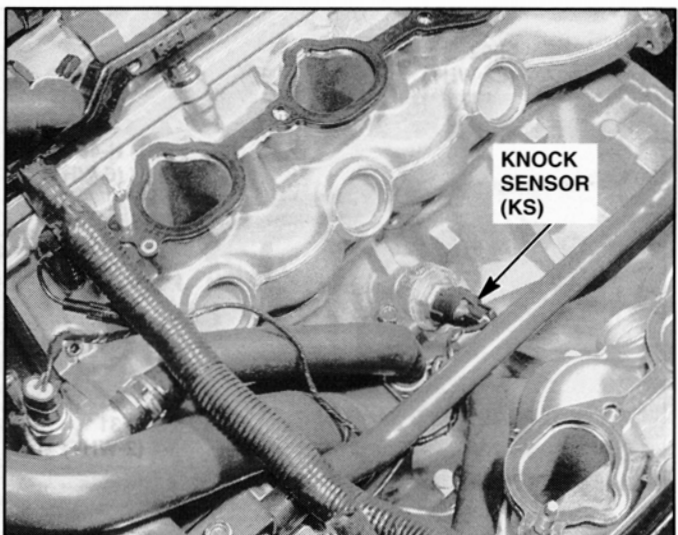
113. Driver's Seat Back (Right Front Similar)



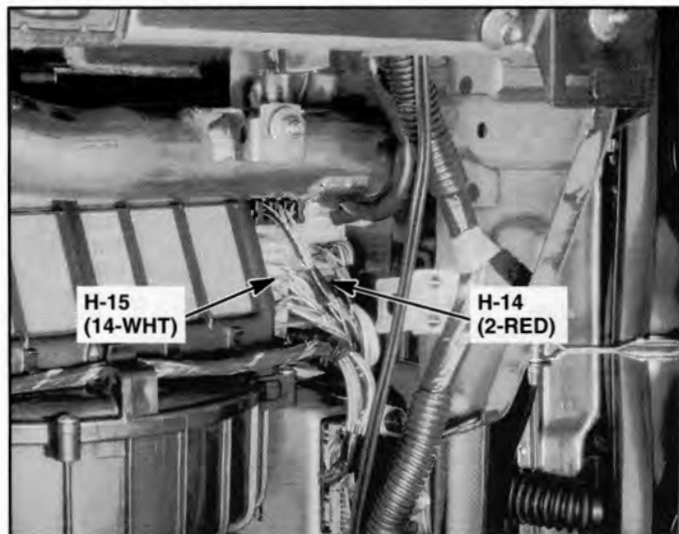
111. Underside of Right Front Seat



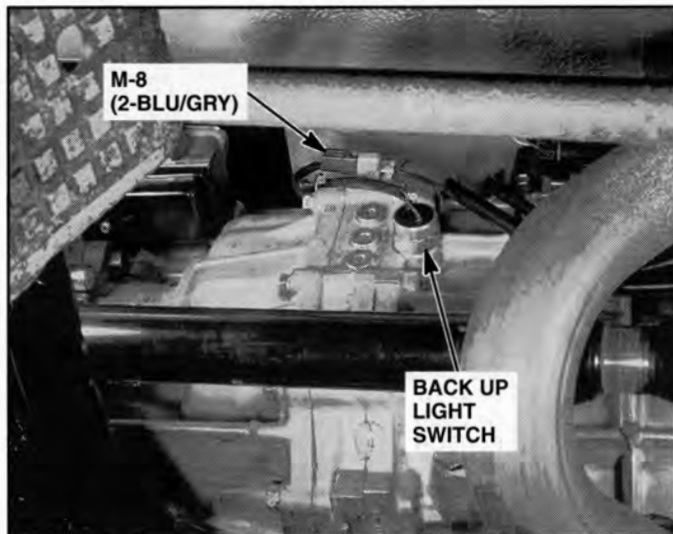
114. Top of Engine
(On Stand with Common Chamber Removed)



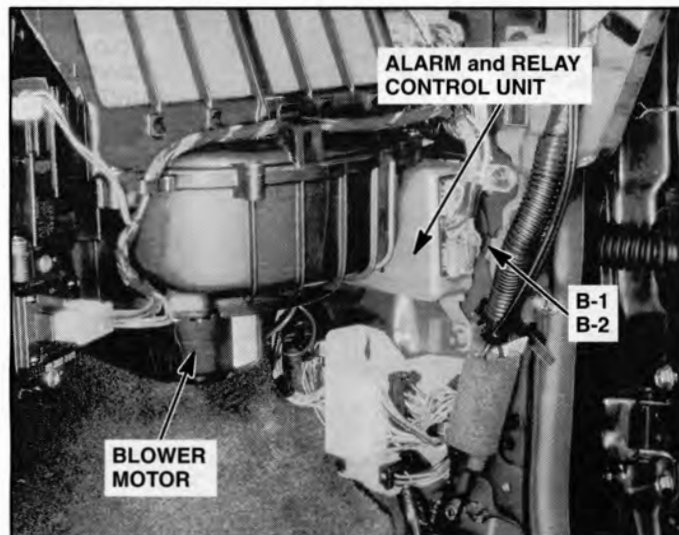
115. Behind Right Side of Dash



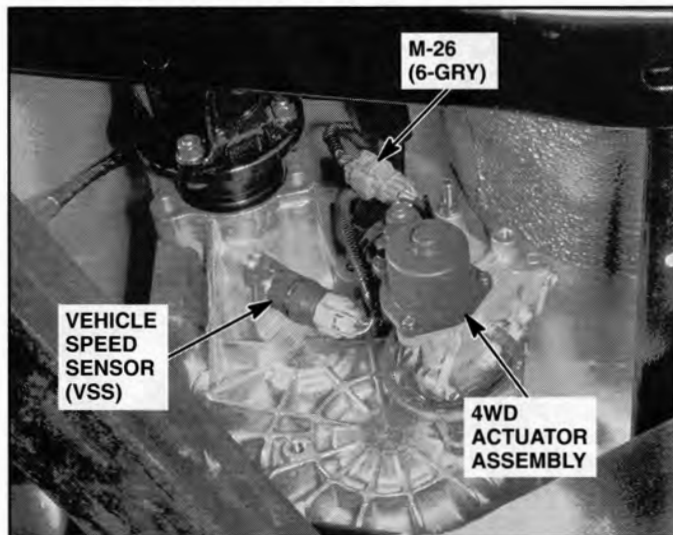
118. Right Side of Manual Transmission



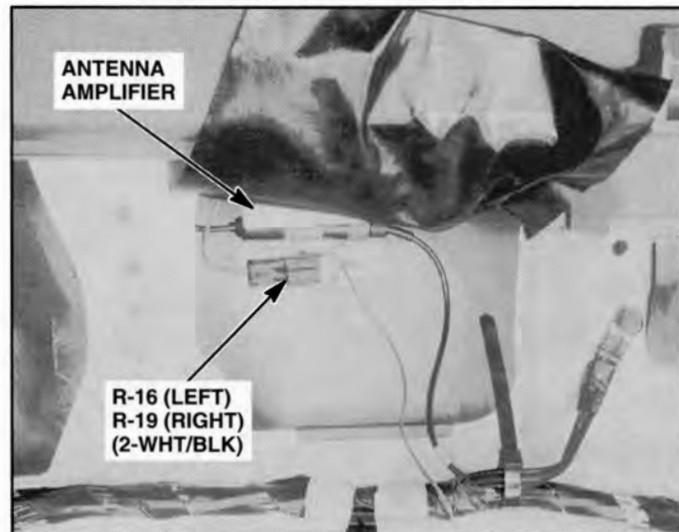
116. Behind Right Side of Dash



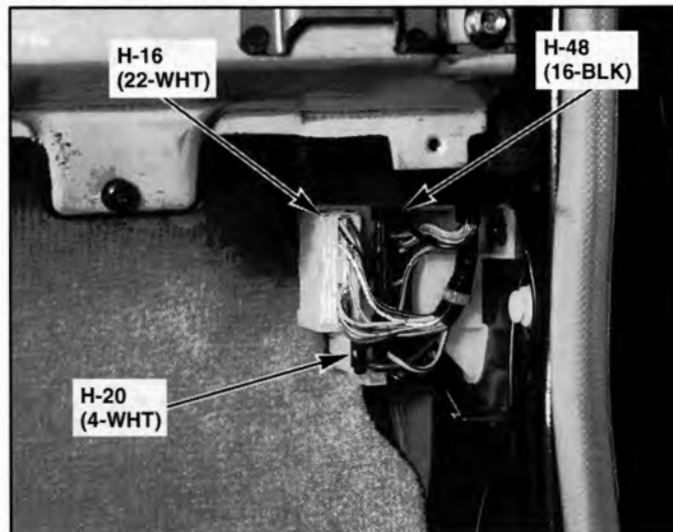
119. Rear of Manual Transmission



117. Left Side of Luggage Room (Right Similar)

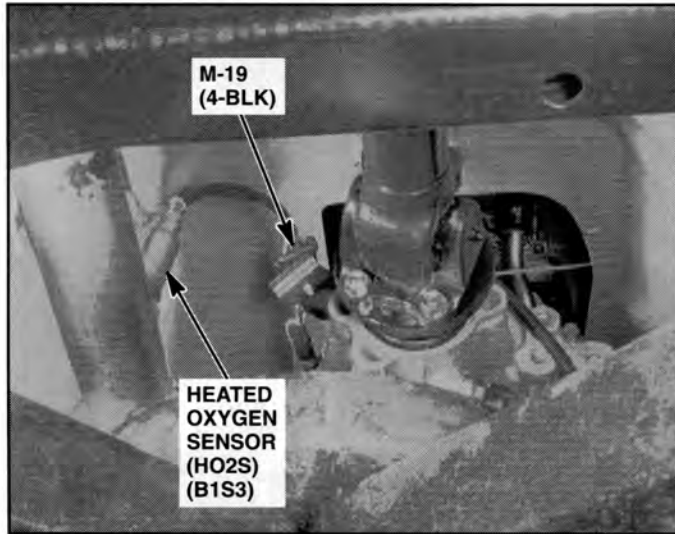


120. Behind Right Kick Panel

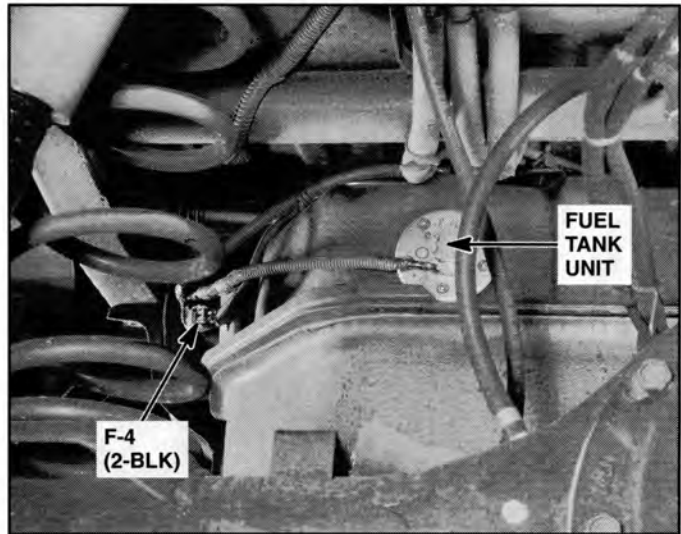


COMPONENT LOCATION PHOTOGRAPHS

121. Left Rear of Manual Transmission



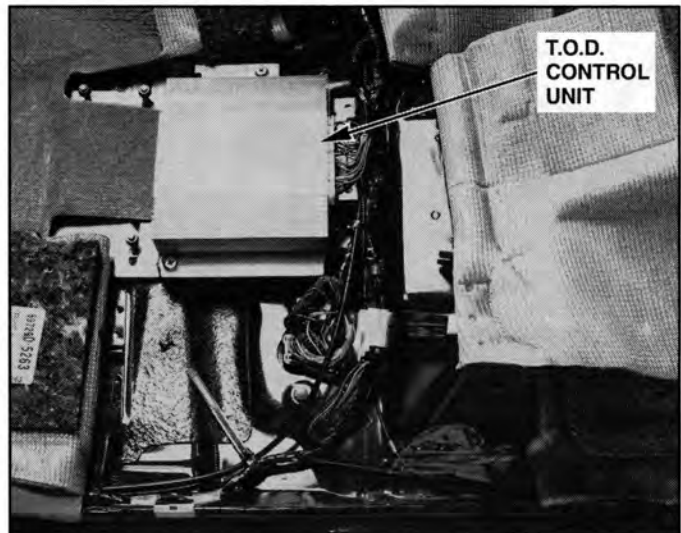
124. Right Front Corner of Fuel Tank



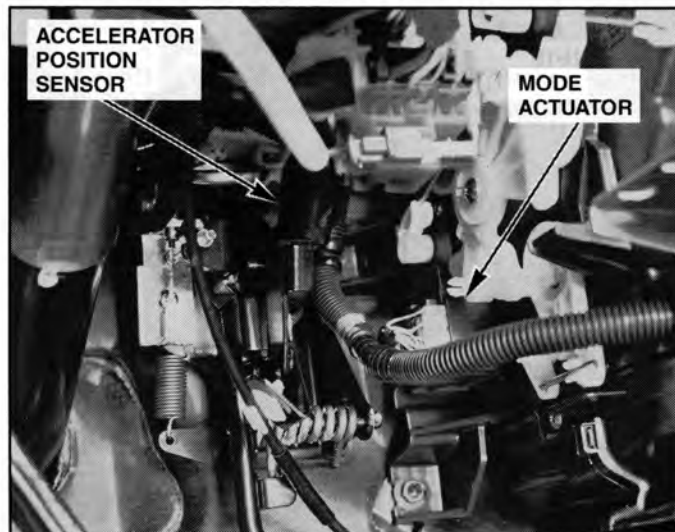
122. Right Front of Engine Compartment



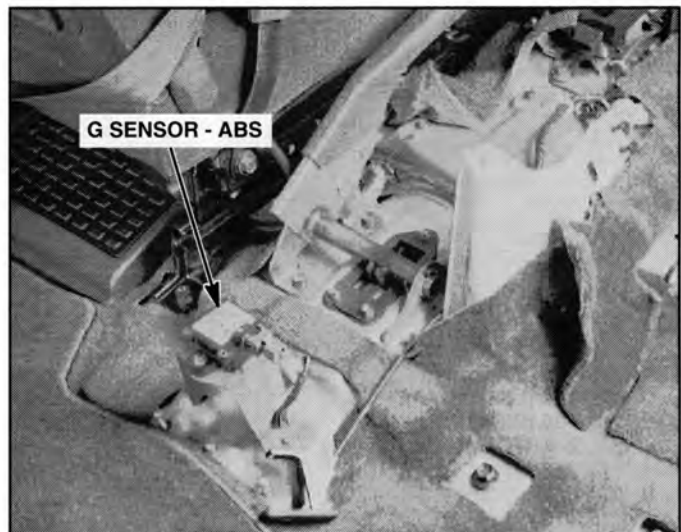
125. Below Right Front Seat



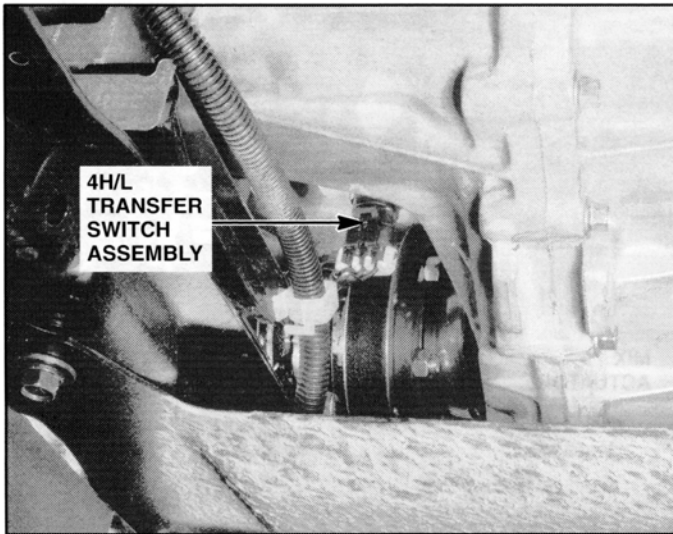
123. Behind Lower Left Dash Panel



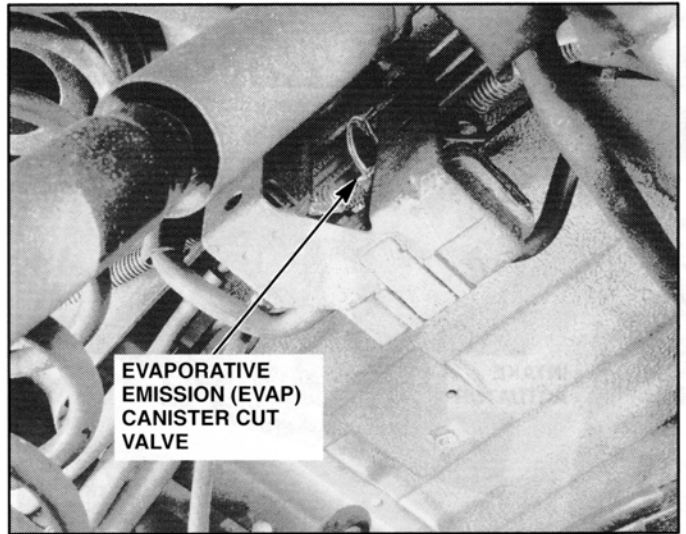
126. Below Center Console



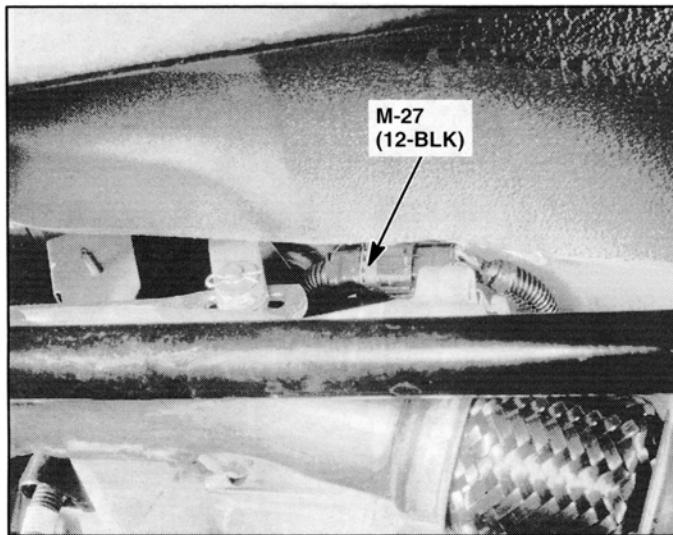
127. Bottom Front of Transfer Case (A/T)



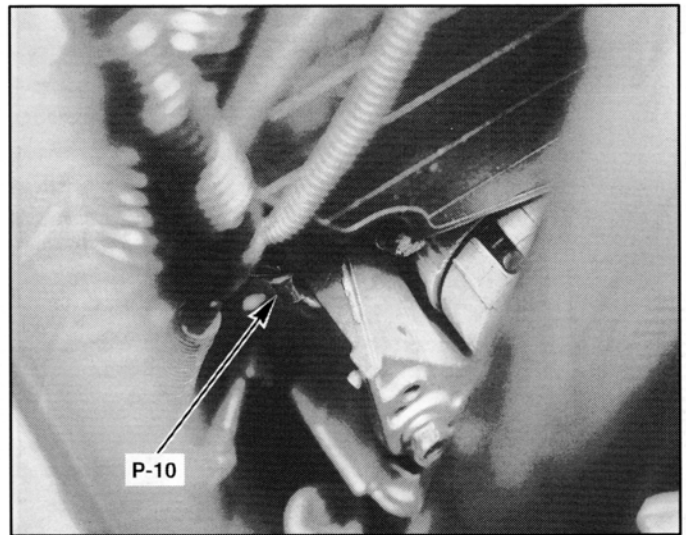
130. Right Side Above Rear Axle



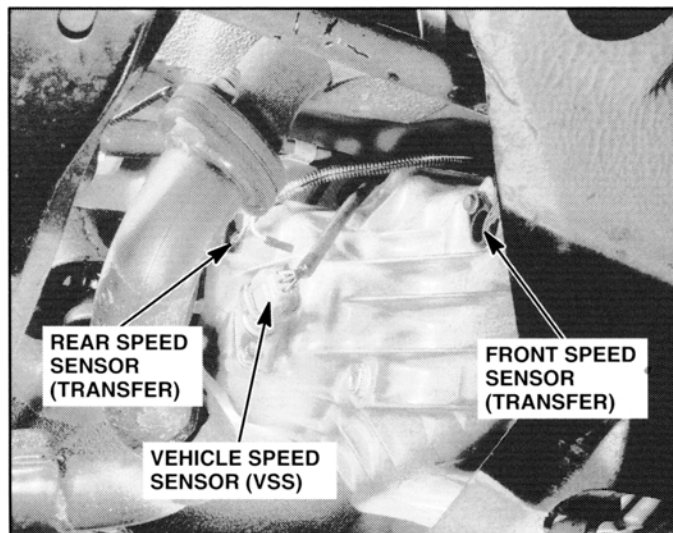
128. Top of Transfer Case (A/T)



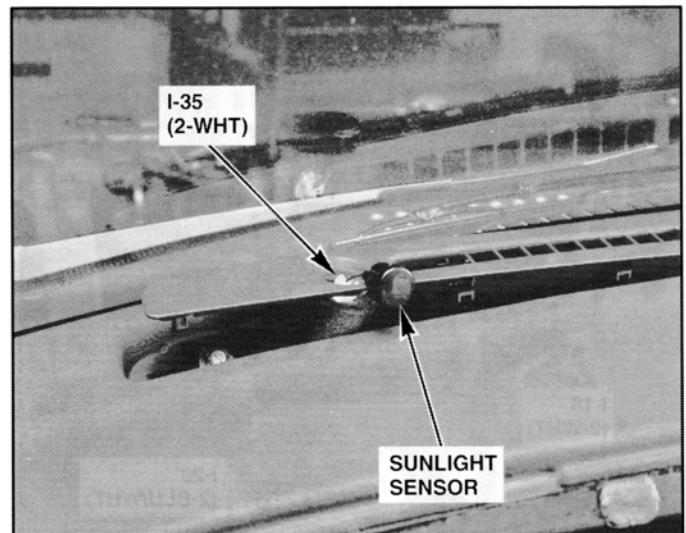
131. Right Front of Engine



129. Rear of Transfer Case (A/T)

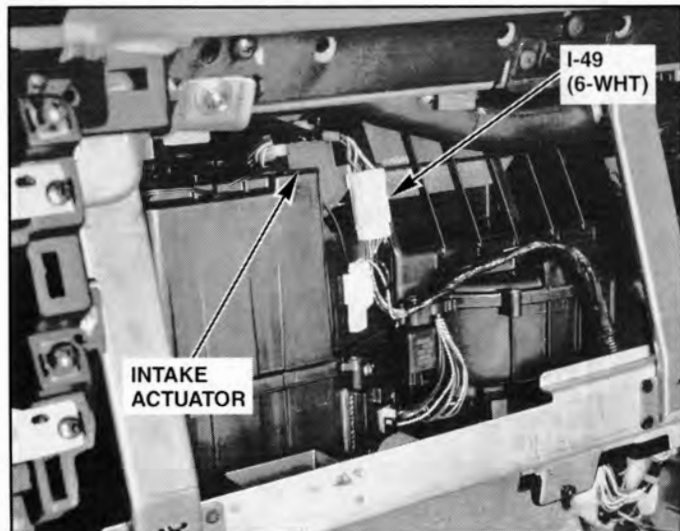


132. Top Left of Dash



COMPONENT LOCATION PHOTOGRAPHS

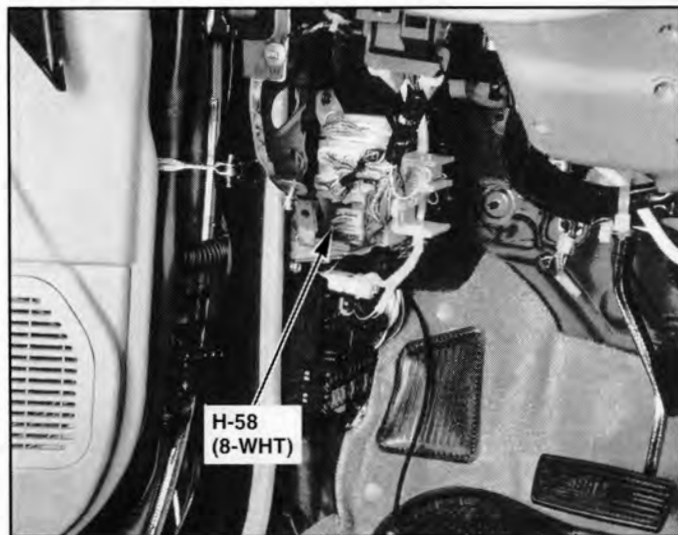
133. Below Right Side of Dash



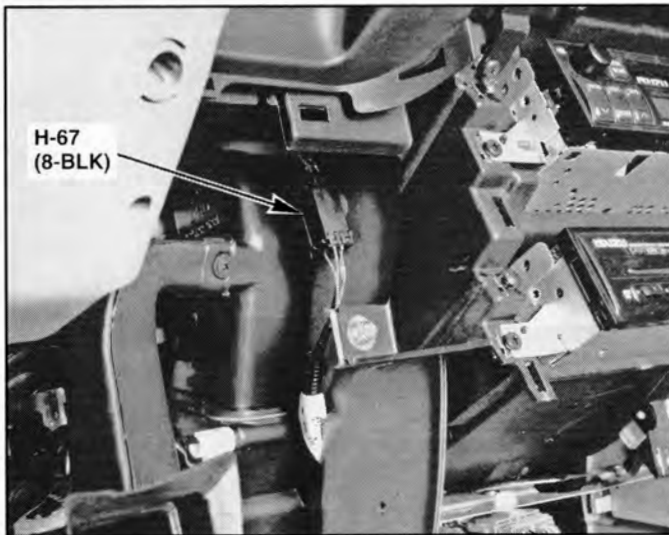
136. Behind Front Console



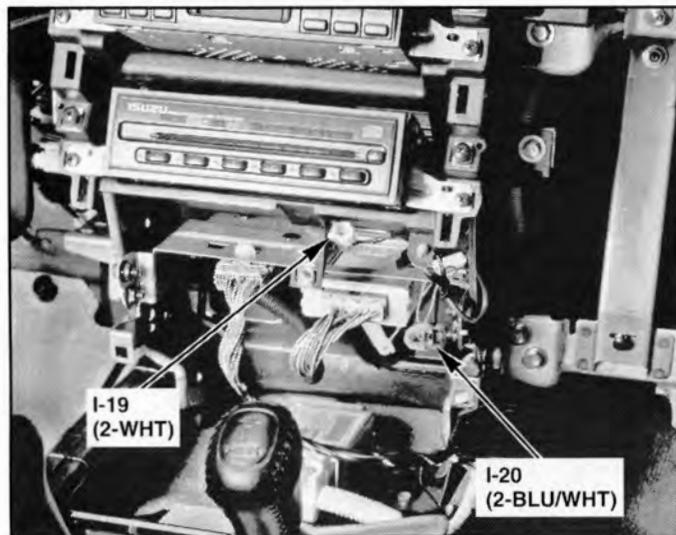
134. Behind Lower Left Dash Panel



137. Behind Lower Left Dash Panel

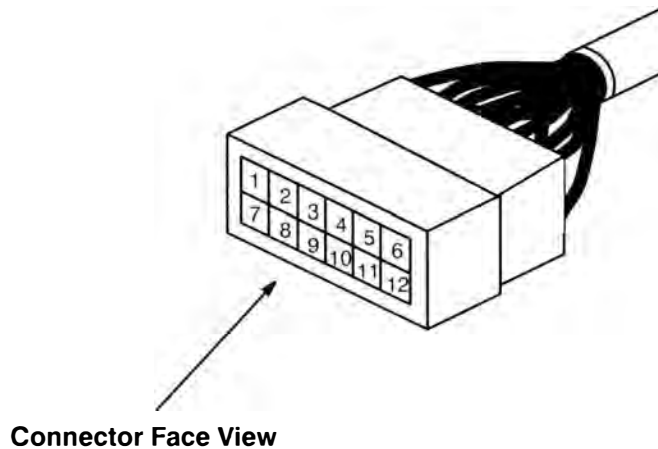


135. Behind Front Console



THIS PAGE INTENTIONALLY LEFT BLANK

HARNESS CONNECTOR VIEWS



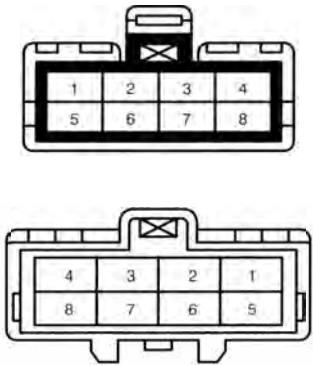
Harness connectors with two or more wire terminals are shown in this section. In-line connector faces (connectors between wire harnesses) are shown separated, with female terminal side in bold outline. Component connector faces are shown disconnected from components.

To make troubleshooting easier, the number of each terminal corresponds to the number found next to the appropriate connector on the schematic. Connectors appear in ascending alpha-numerical order.

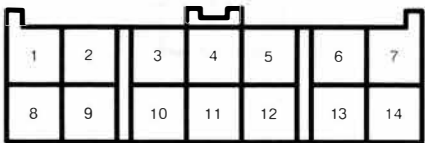
B-5



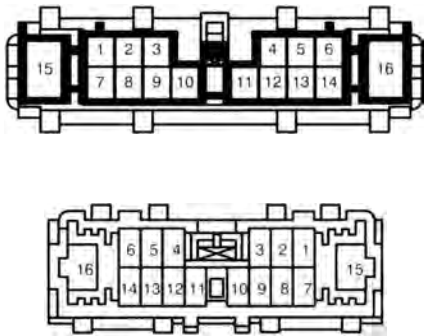
B-11



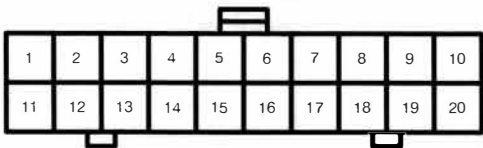
B-6



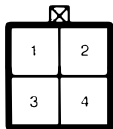
B-12



B-7



B-13



HARNESS CONNECTOR VIEWS

B-16, B-17



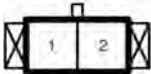
B-24



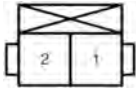
B-20



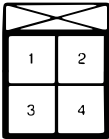
B-25



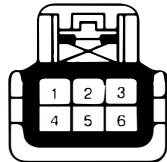
B-22



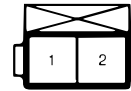
B-29



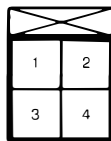
B-30



B-33



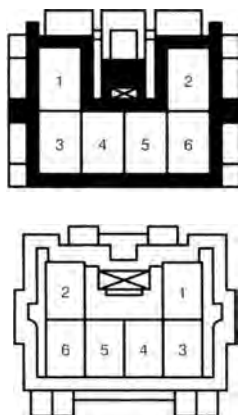
B-31



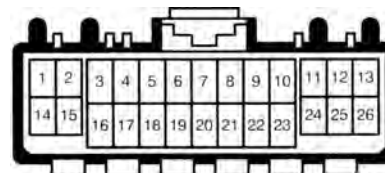
B-35



B-32

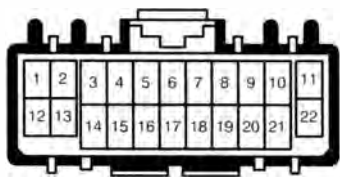


B-48



HARNESS CONNECTOR VIEWS

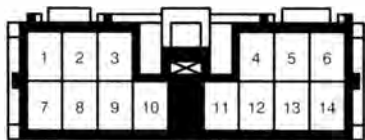
B-49



B-56



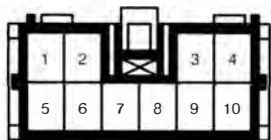
B-52



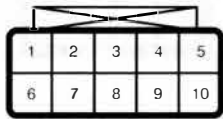
B-57



B-55




B-59



B-69

1	2		3	4
5	6	7	8	9

C-15


1
2

C-4


1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19			
20	21	22	23	24	25	26	27	28	29	30

C-16

1	2	3	4
5	6	7	8

4	3	2	1
8	7	6	5

C-9, C-13

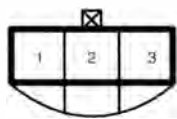

1
2

C-19

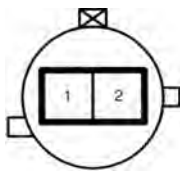
2
1

HARNESS CONNECTOR VIEWS

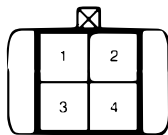
C-21



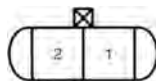
C-25



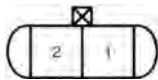
C-22



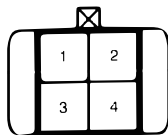
C-29



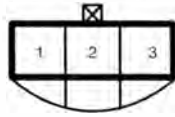
C-24



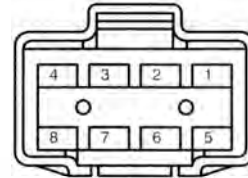
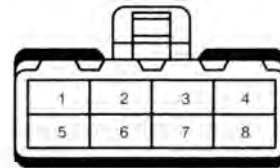
C-31



C-32



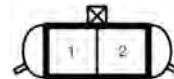
C-39



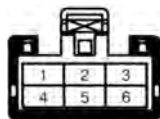
C-35



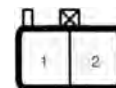
C-41



C-38

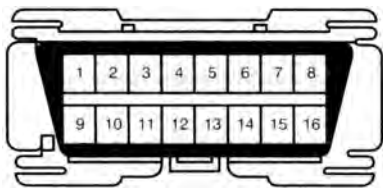


C-42

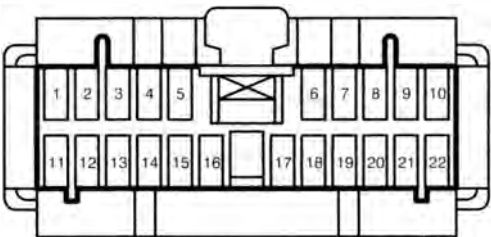


HARNESS CONNECTOR VIEWS

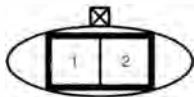
C-63



C-94



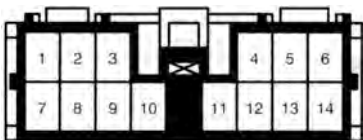
C-86



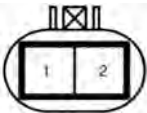
D-1



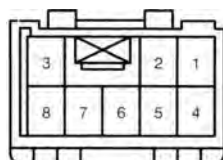
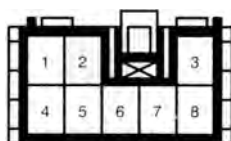
C-93



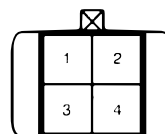
D-2



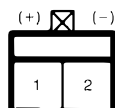
D-3



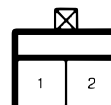
D-6



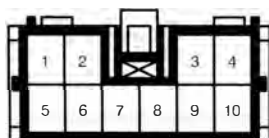
D-4



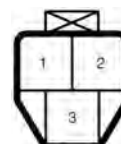
D-7



D-5

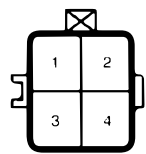


D-8

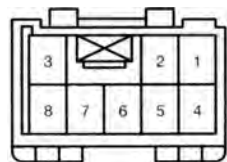
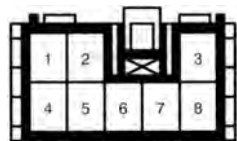


HARNESS CONNECTOR VIEWS

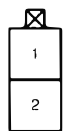
D-9



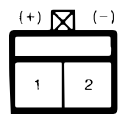
D-12



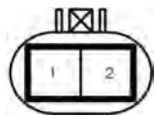
D-10



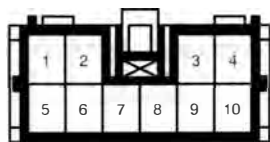
D-13



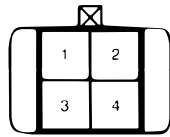
D-11



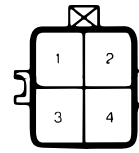
D-14



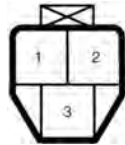
D-16



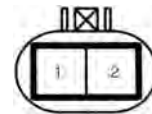
D-19



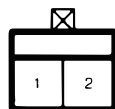
D-17



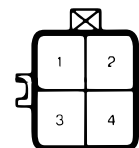
D-20



D-18

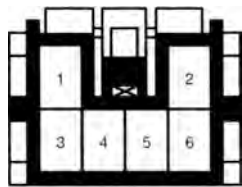


D-21

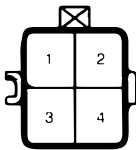


HARNESS CONNECTOR VIEWS

D-22



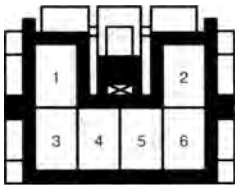
D-26



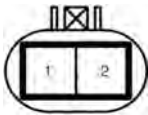
D-24



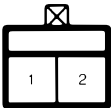
D-27



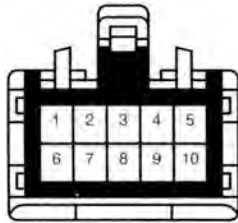
D-25



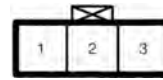
D-29



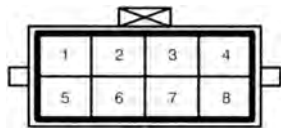
D-30



E-7



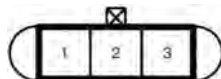
E-5



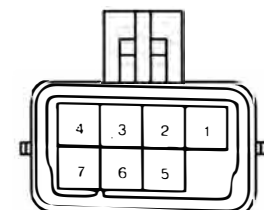
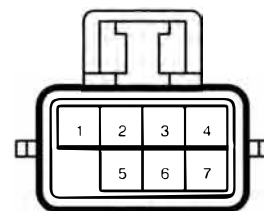
E-8



E-6

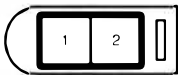


E-9

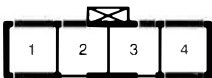


HARNESS CONNECTOR VIEWS

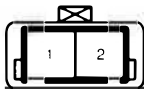
E-11, E-12, E-13



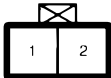
E-17, E-18



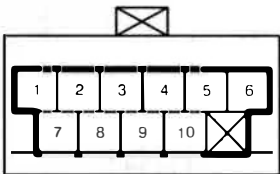
E-14, E-15



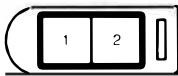
E-20



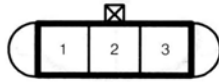
E-16



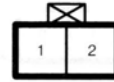
E-24, E-25, E-26



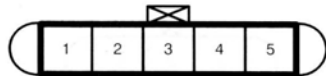
E-27, E-32



E-43



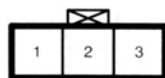
E-33



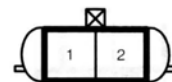
E-44



E-37, E-38, E-39, E-40, E-41, E-42

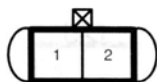


F-2



HARNESS CONNECTOR VIEWS

F-3



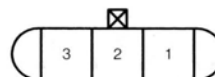
F-6



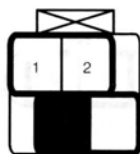
F-4



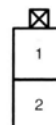
F-7



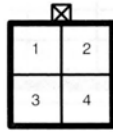
F-5



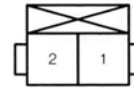
G-2



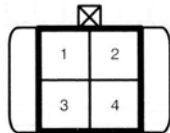
G-4



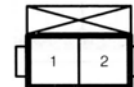
G-8



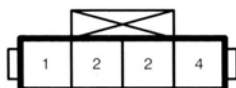
G-5



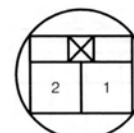
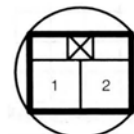
G-9



G-6

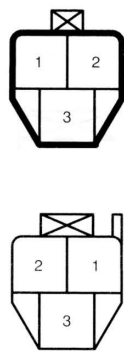


H-2

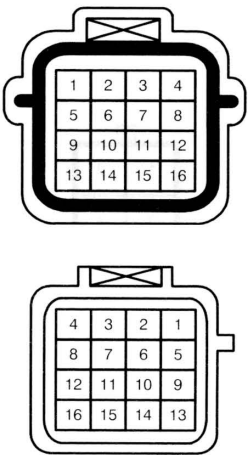


HARNESS CONNECTOR VIEWS

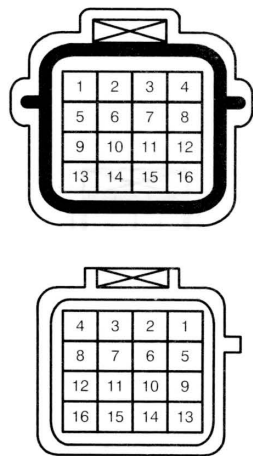
H-3



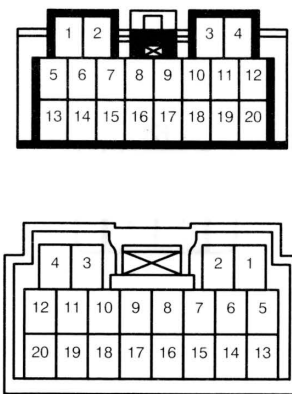
H-6



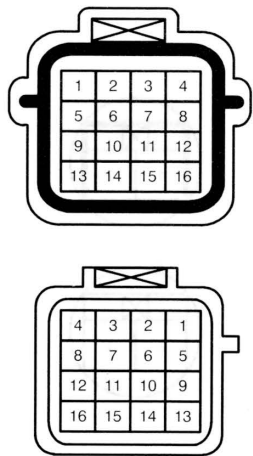
H-4



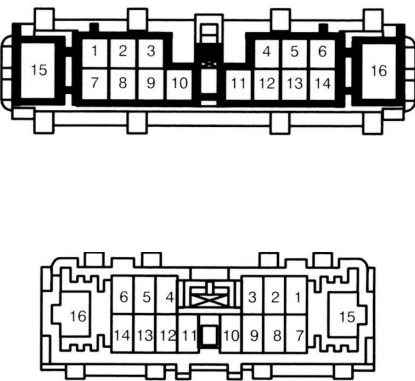
H-7



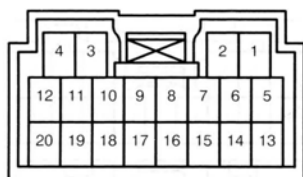
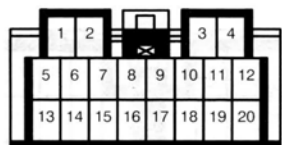
H-5



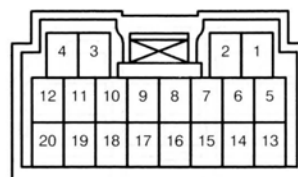
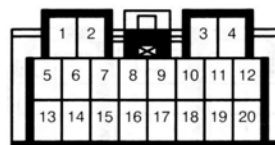
H-8



H-9



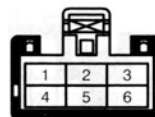
H-12



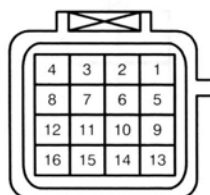
H-10



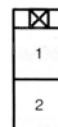
H-13



H-11

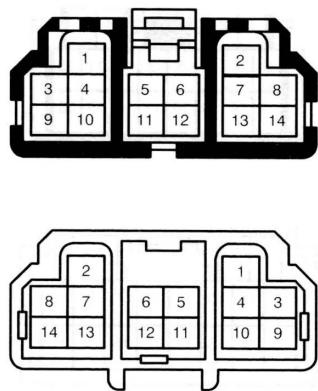


H-14

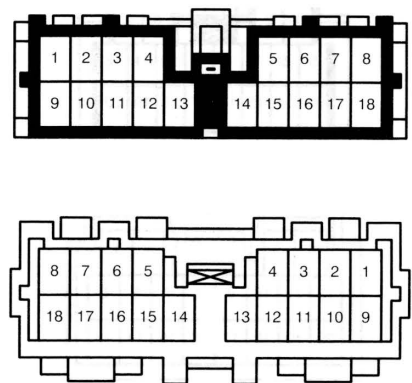


HARNESS CONNECTOR VIEWS

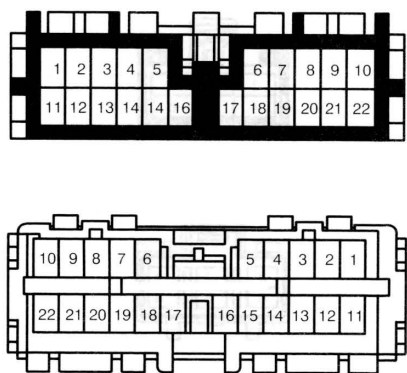
H-15



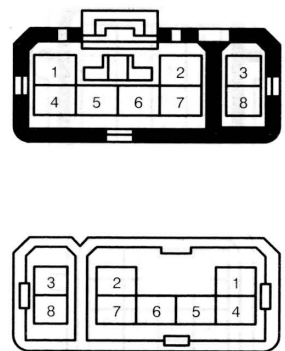
H-18



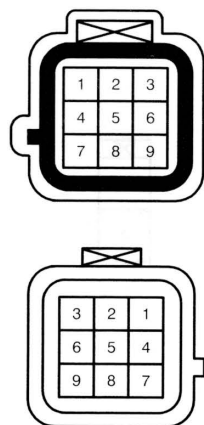
H-16



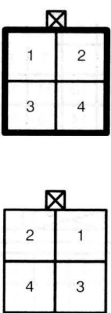
H-19



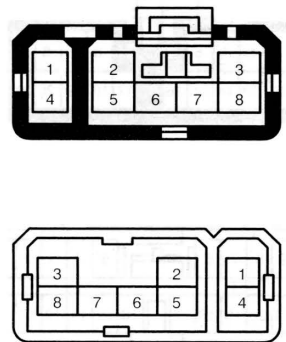
H-17



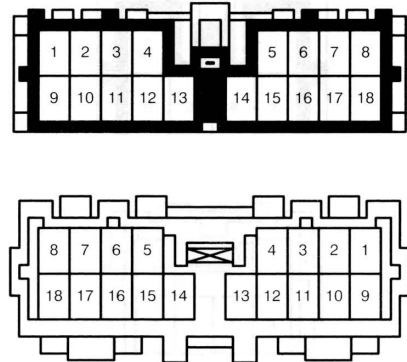
H-20



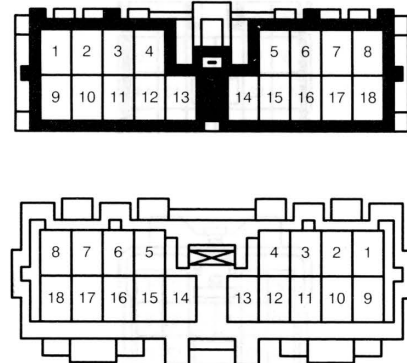
H-21



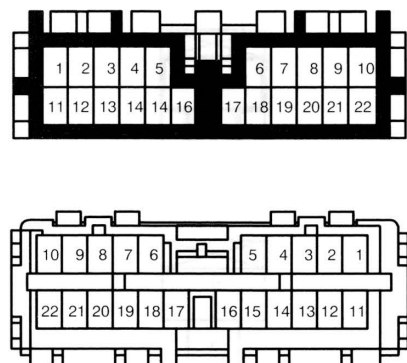
H-24



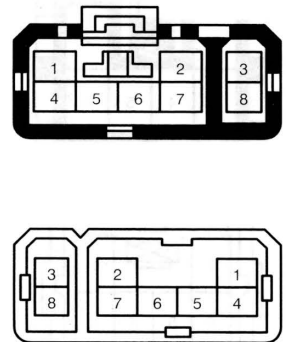
H-22



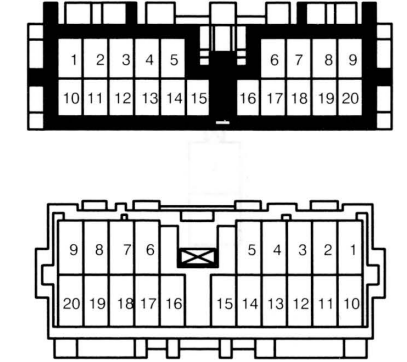
H-25



H-23

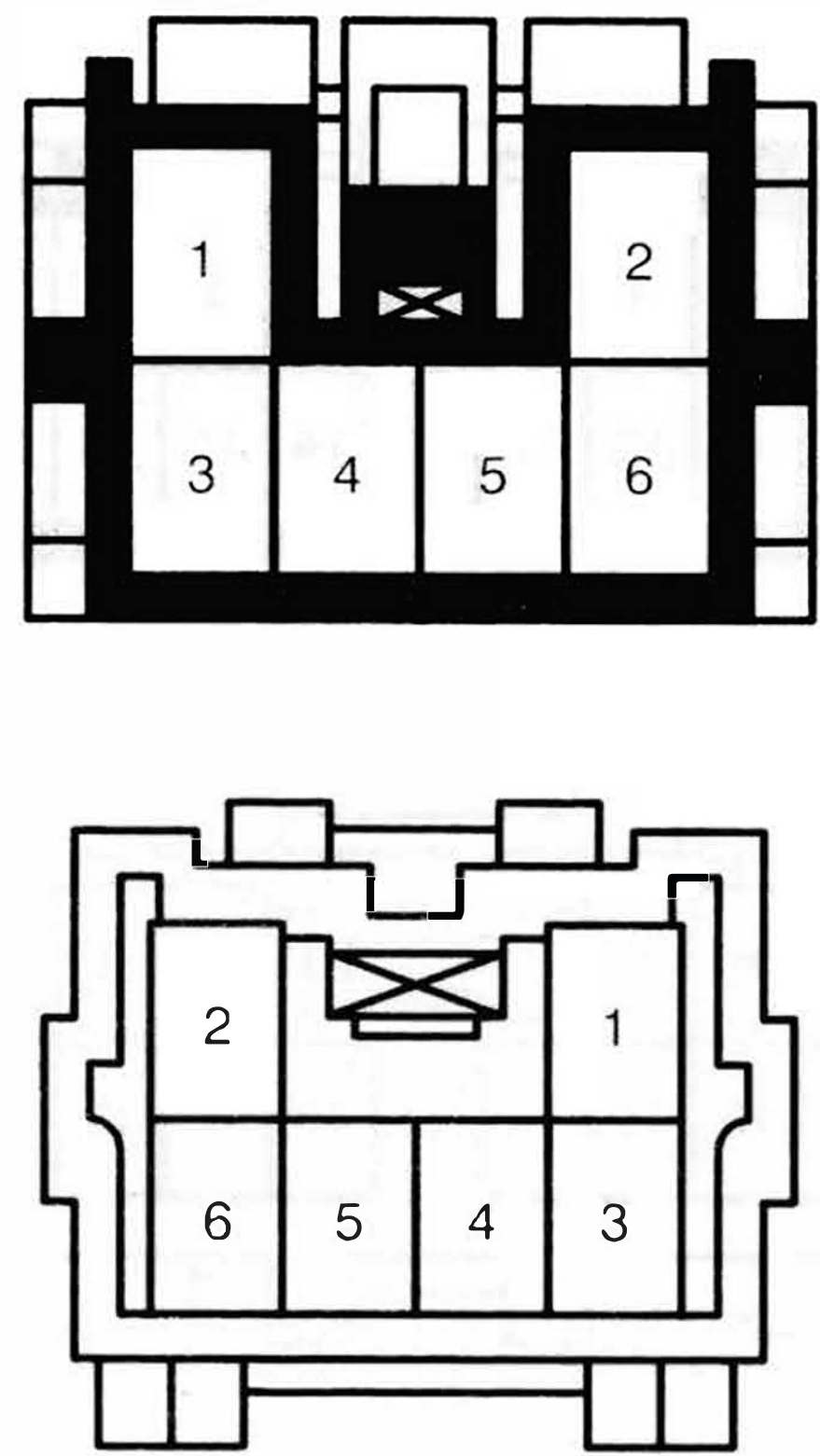


H-26

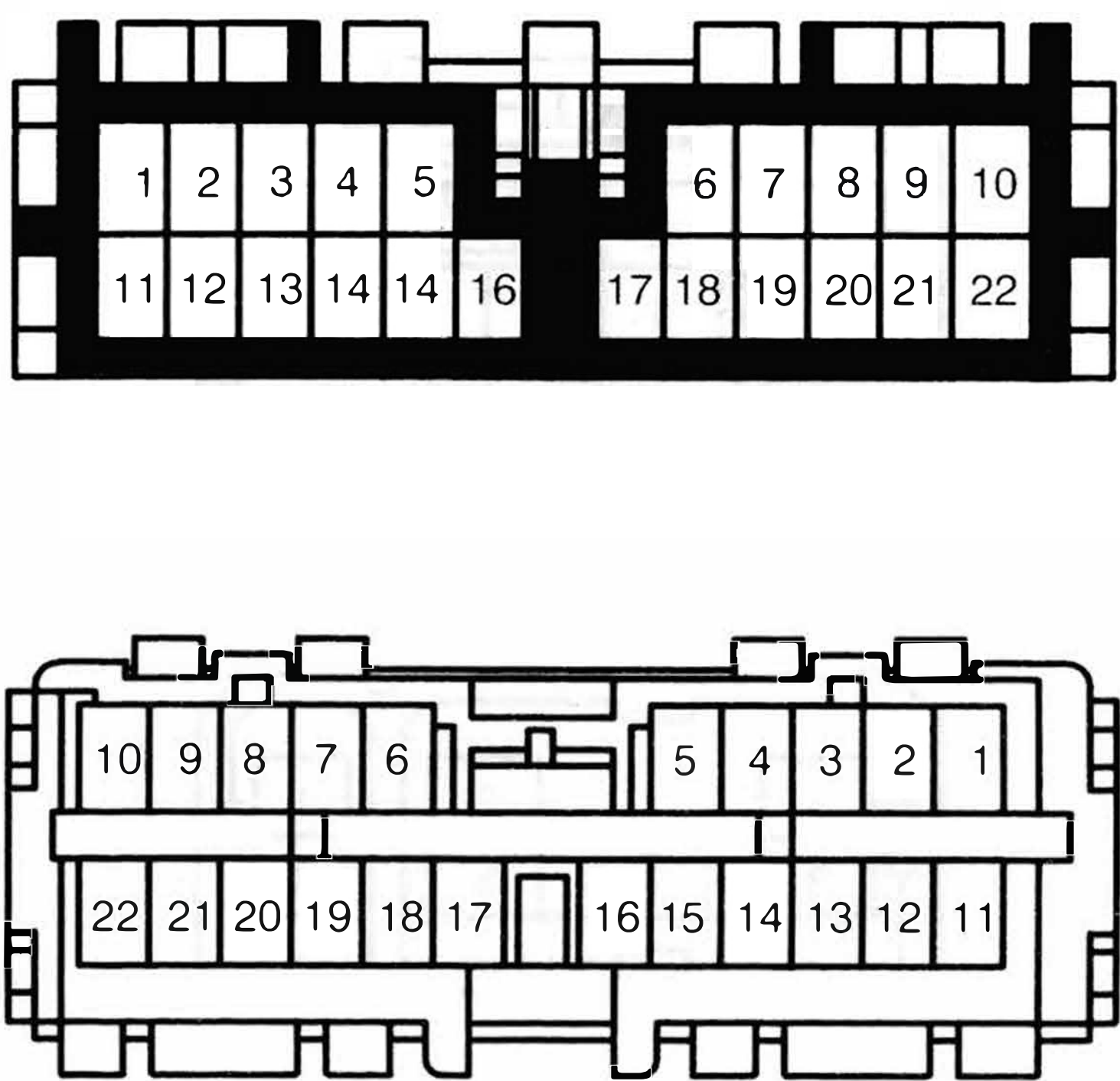


HARNESS CONNECTOR VIEWS

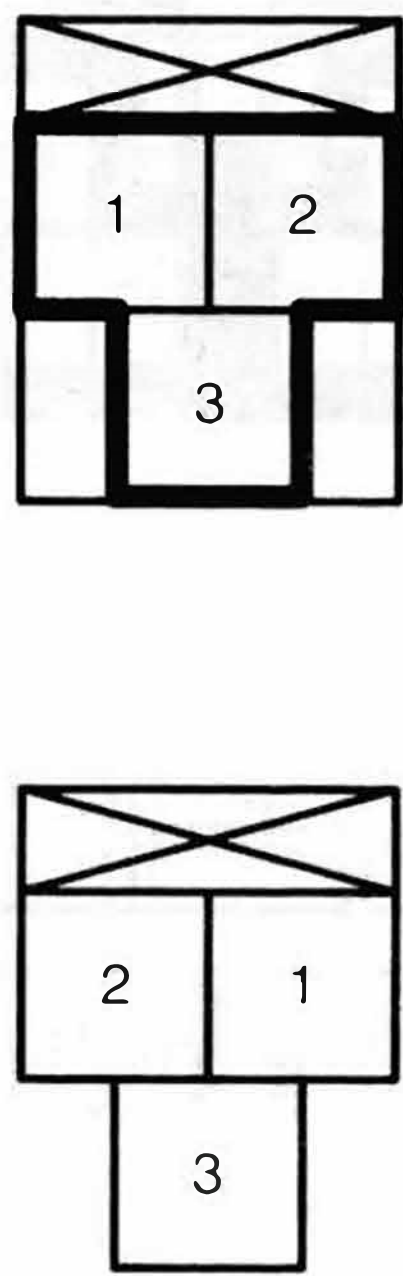
H-28



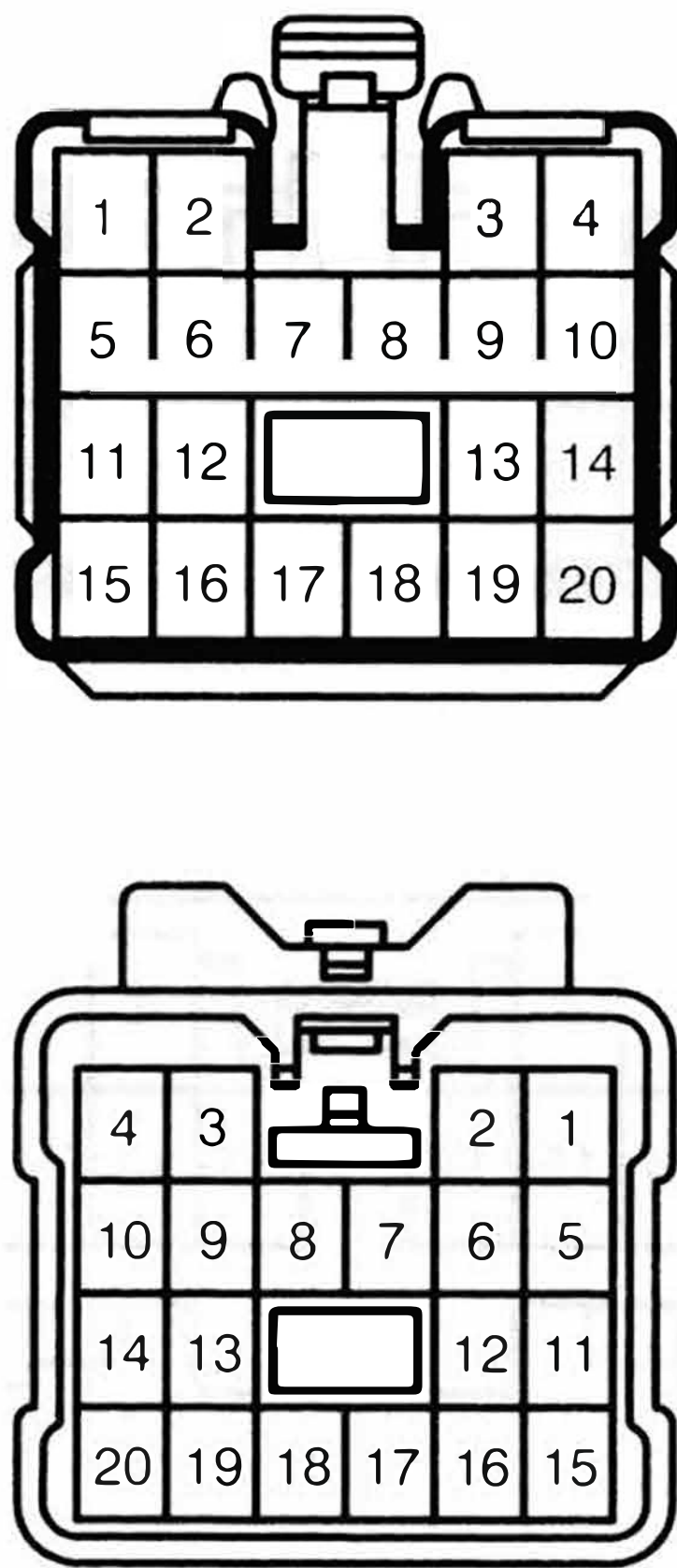
H-32



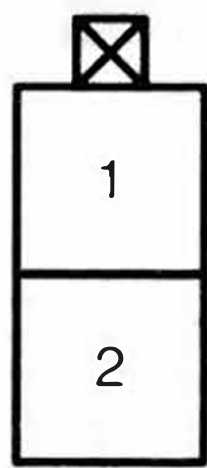
H-29



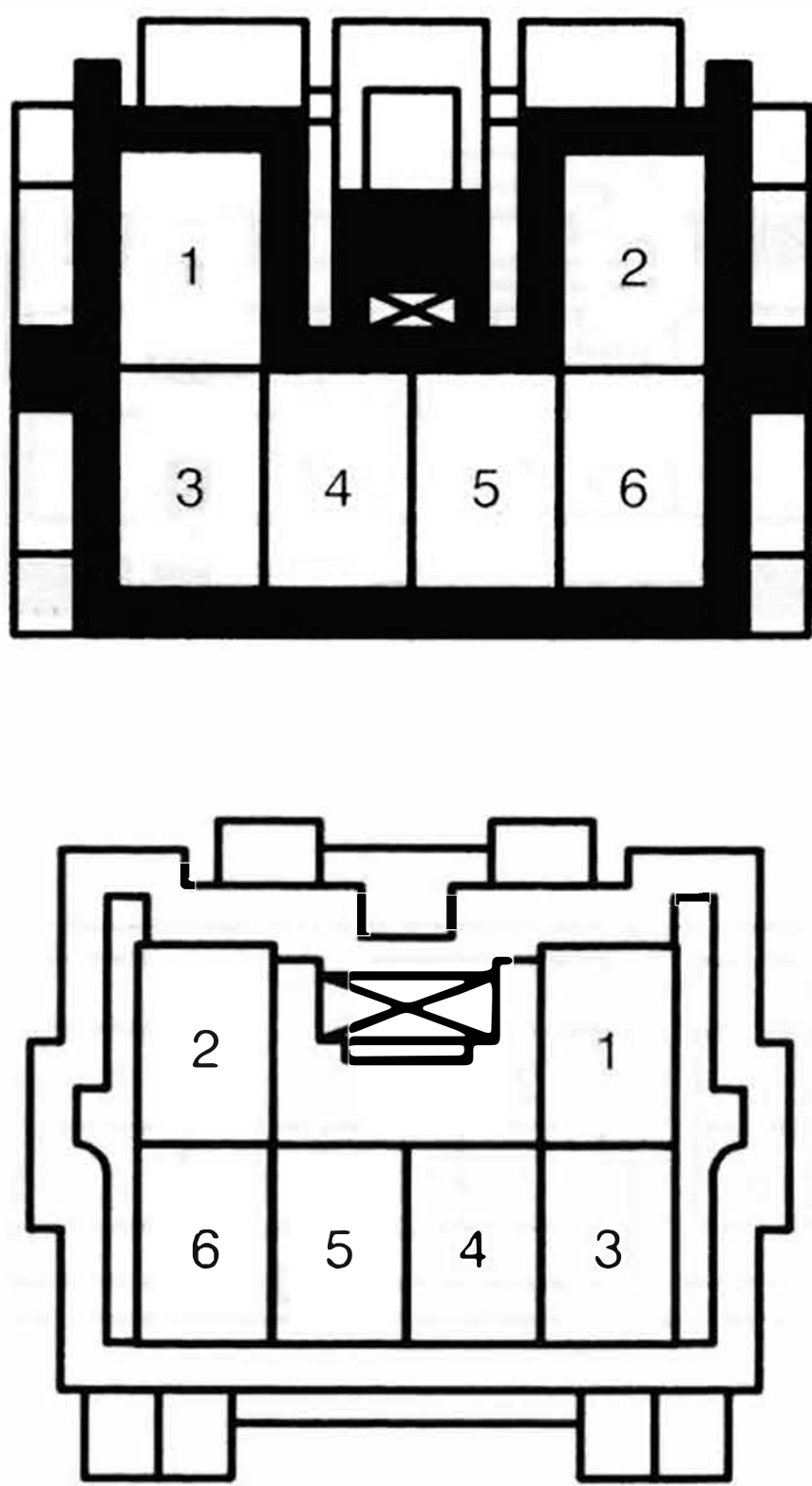
H-33



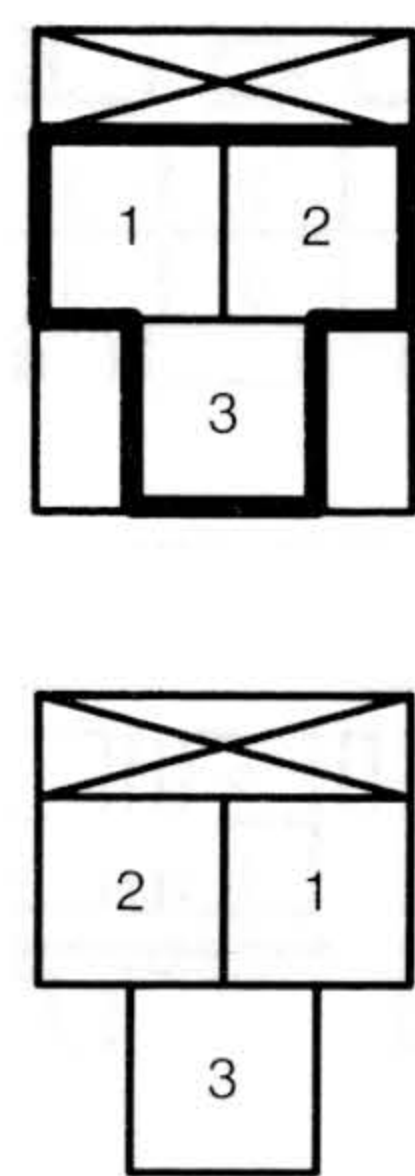
H-31



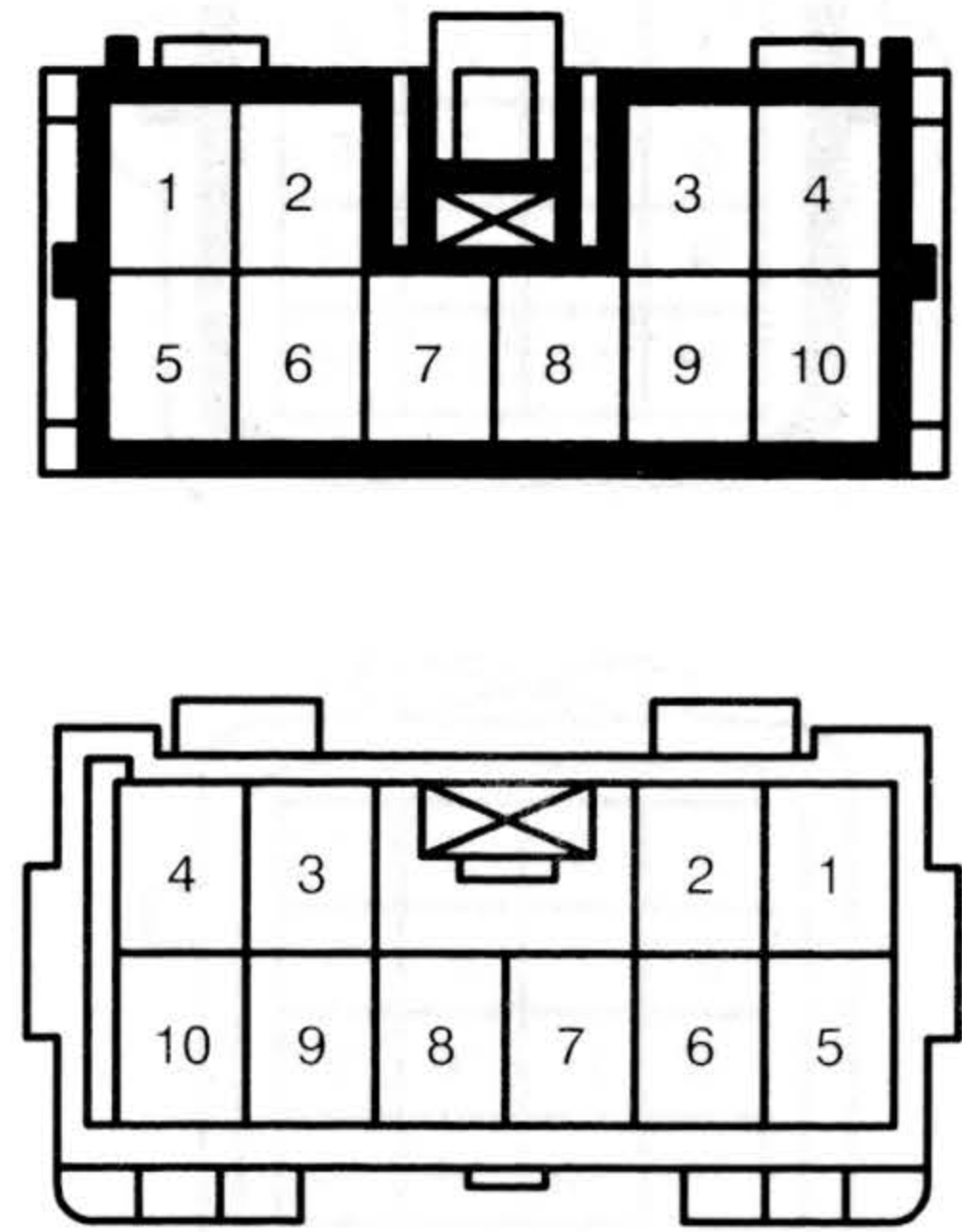
H-34



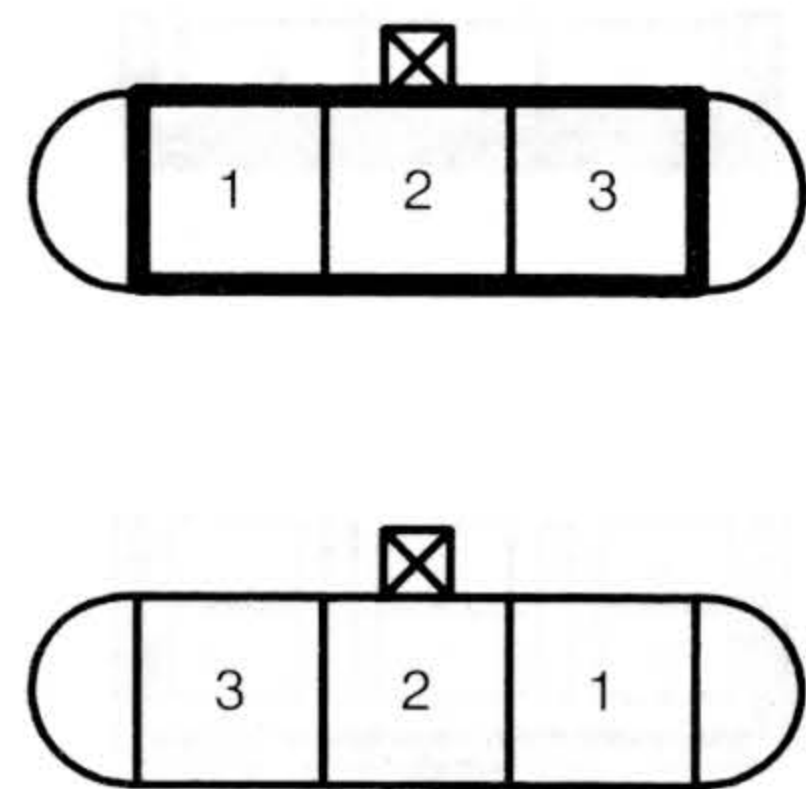
H-35



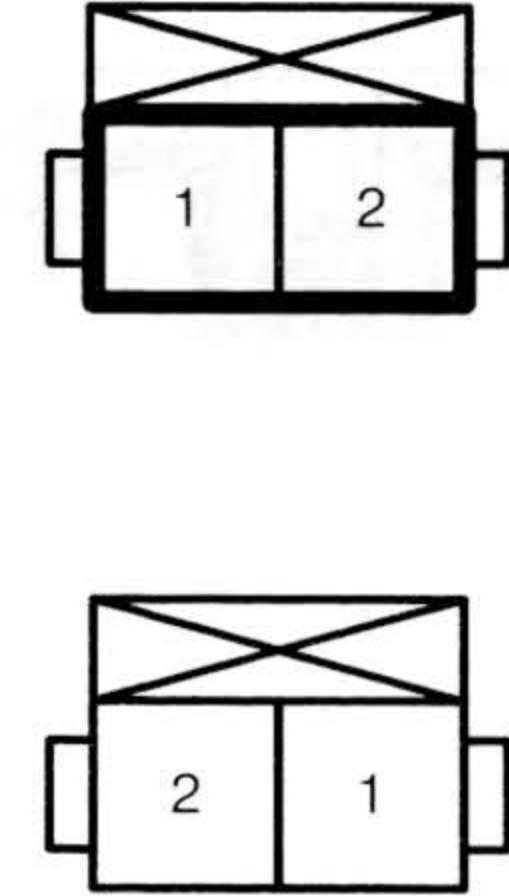
H-38



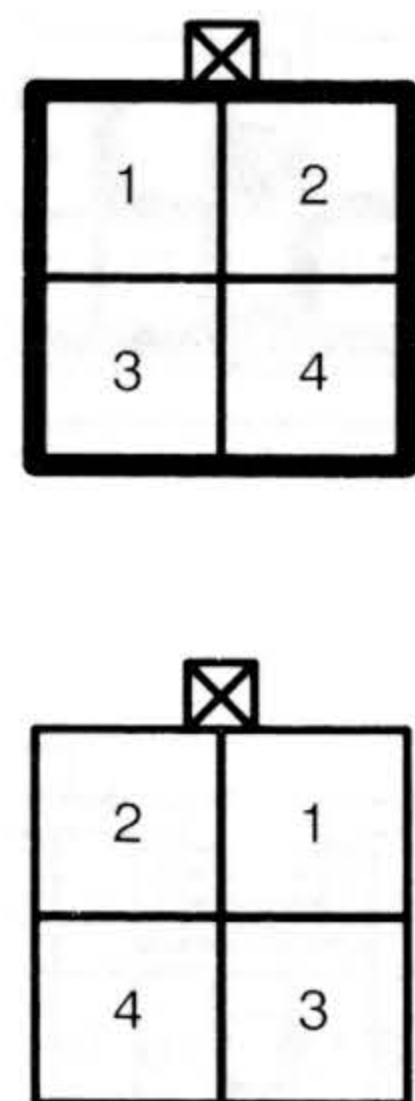
H-36



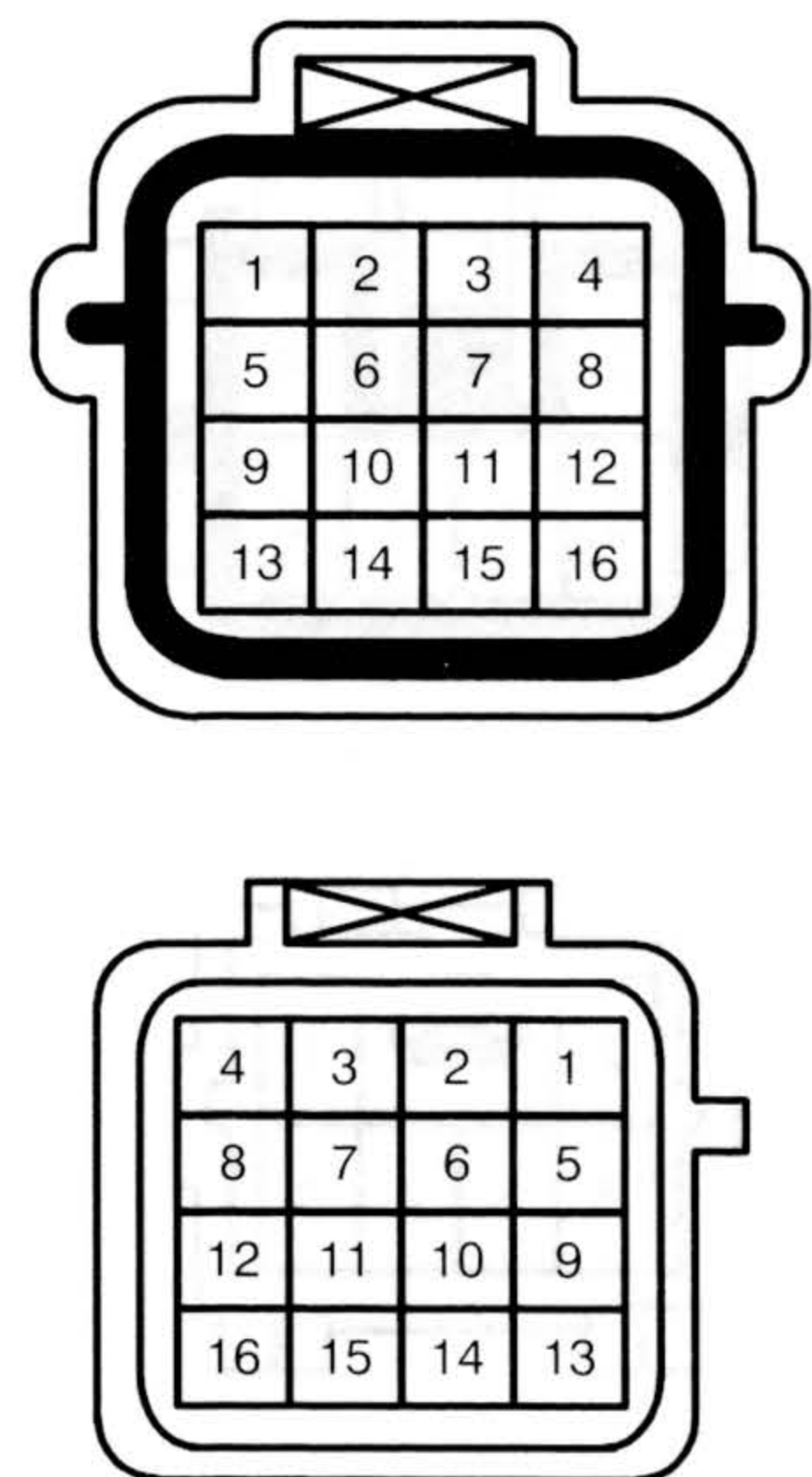
H-39



H-37

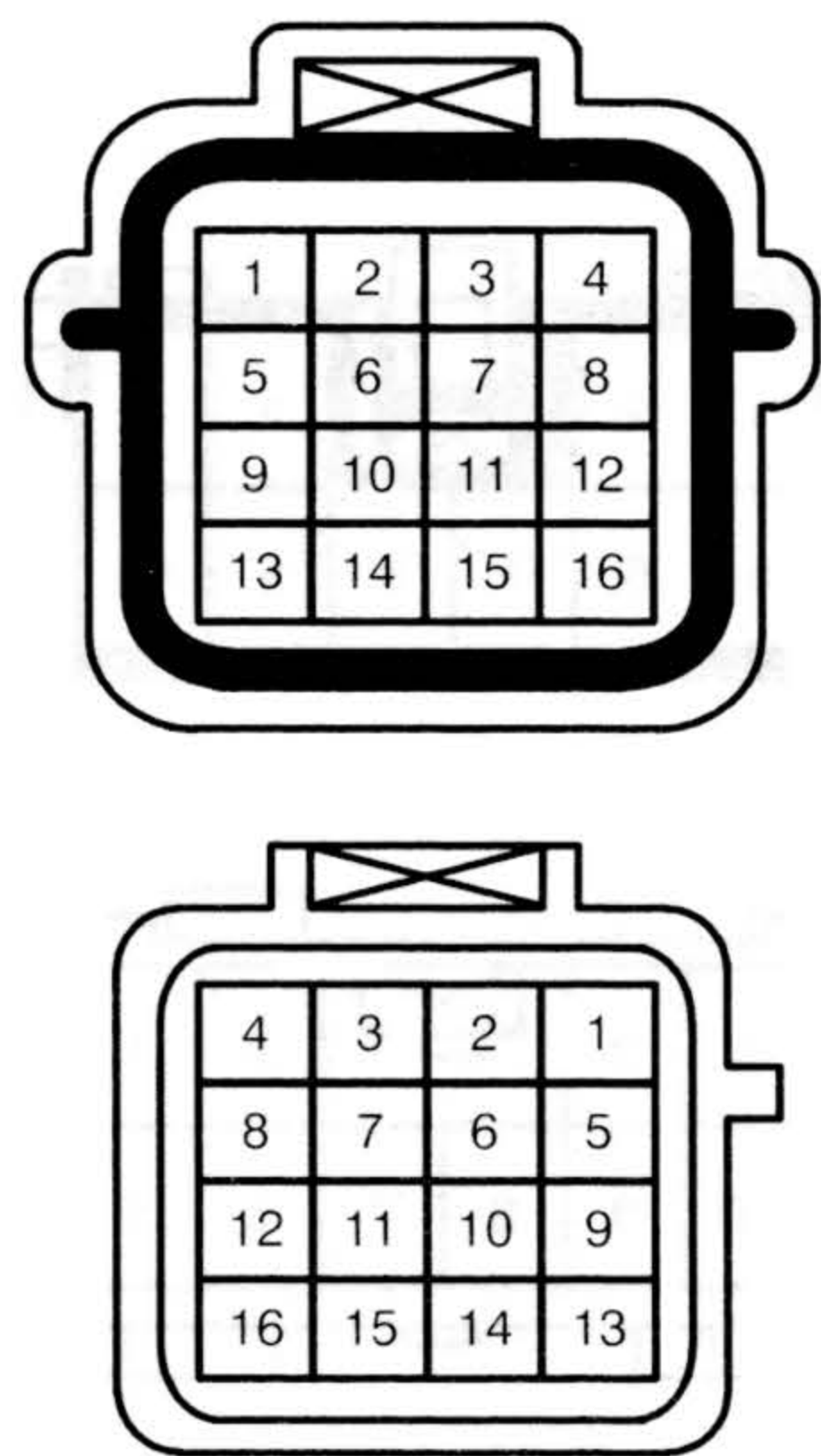


H-41

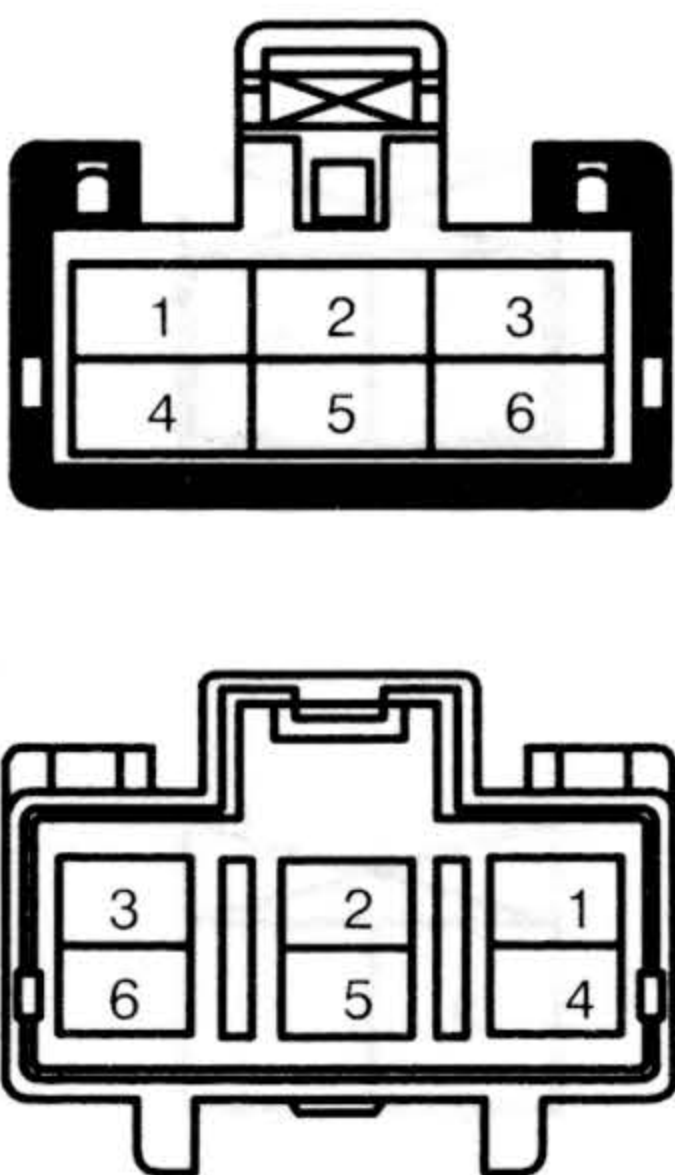


HARNESS CONNECTOR VIEWS

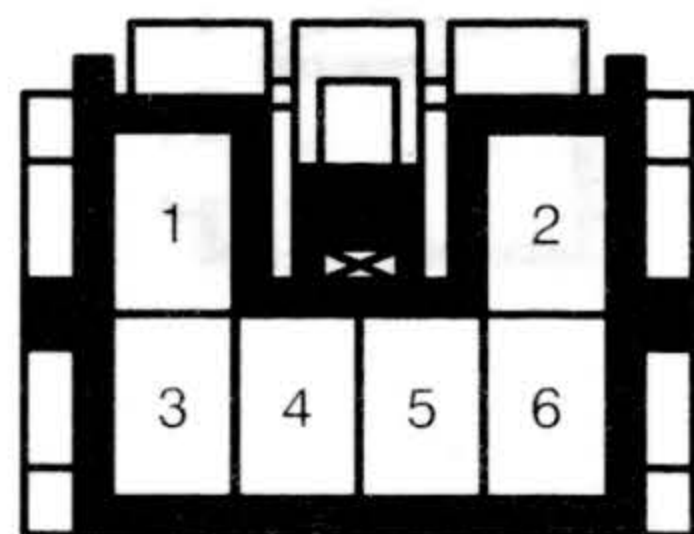
H-42



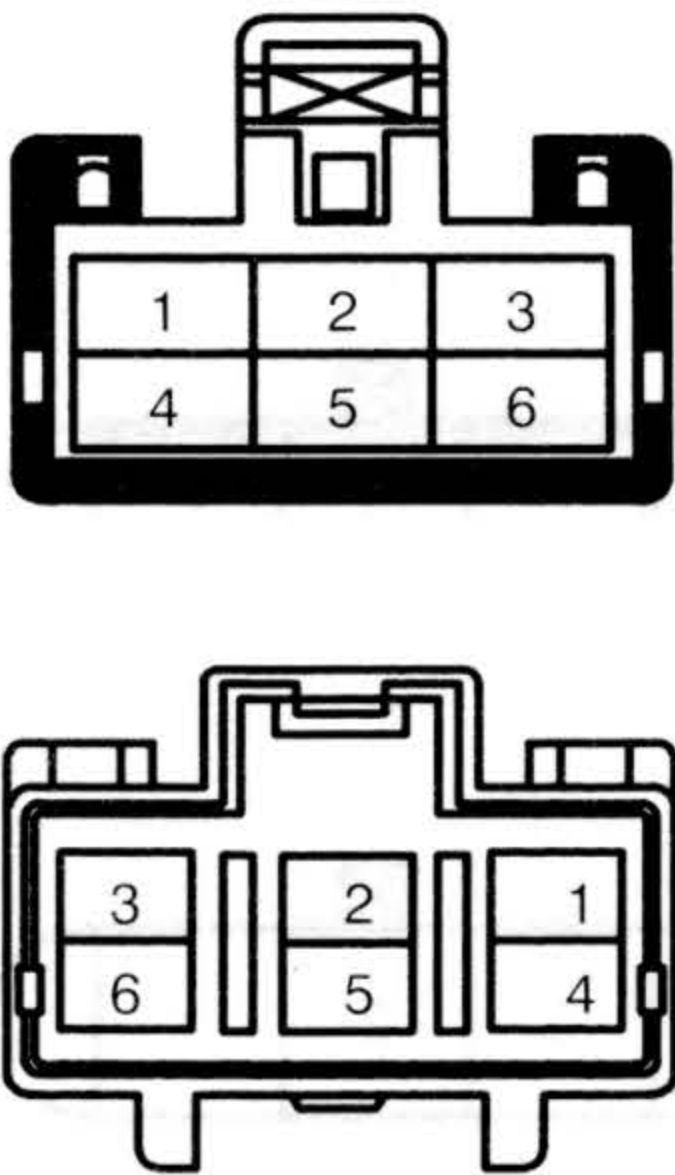
H-46



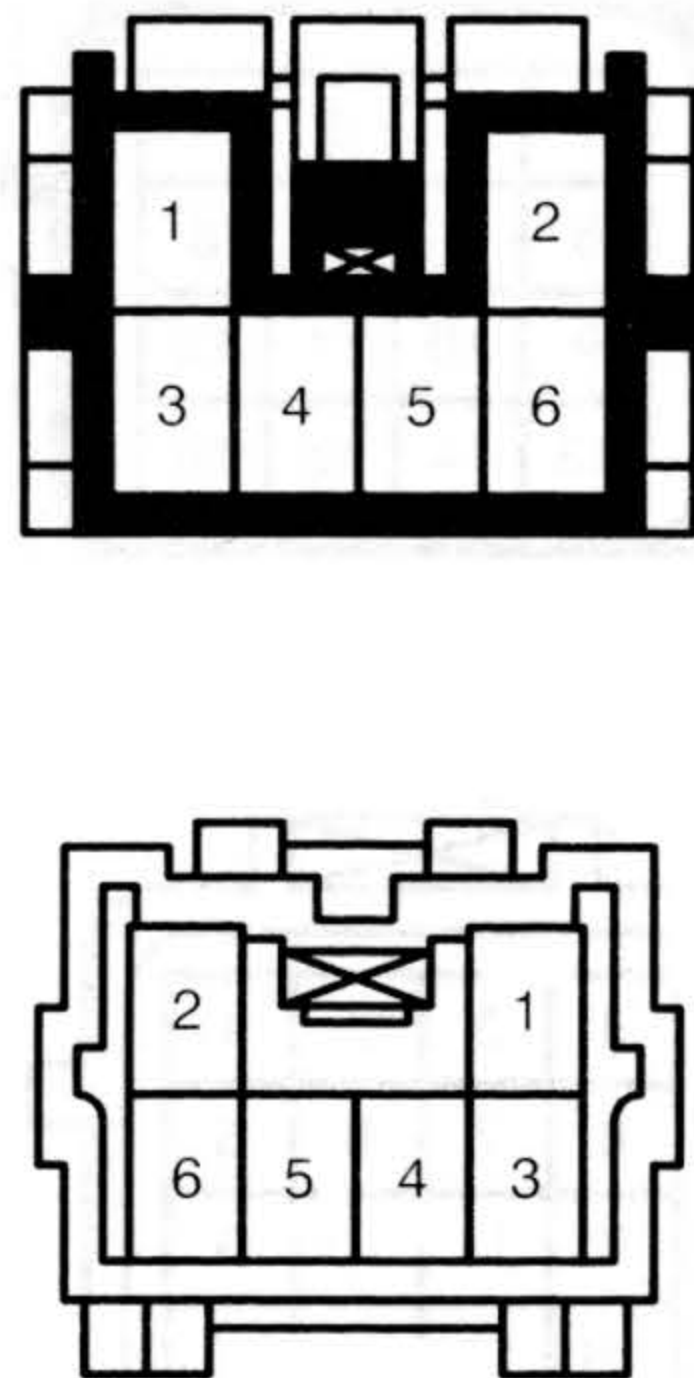
H-44



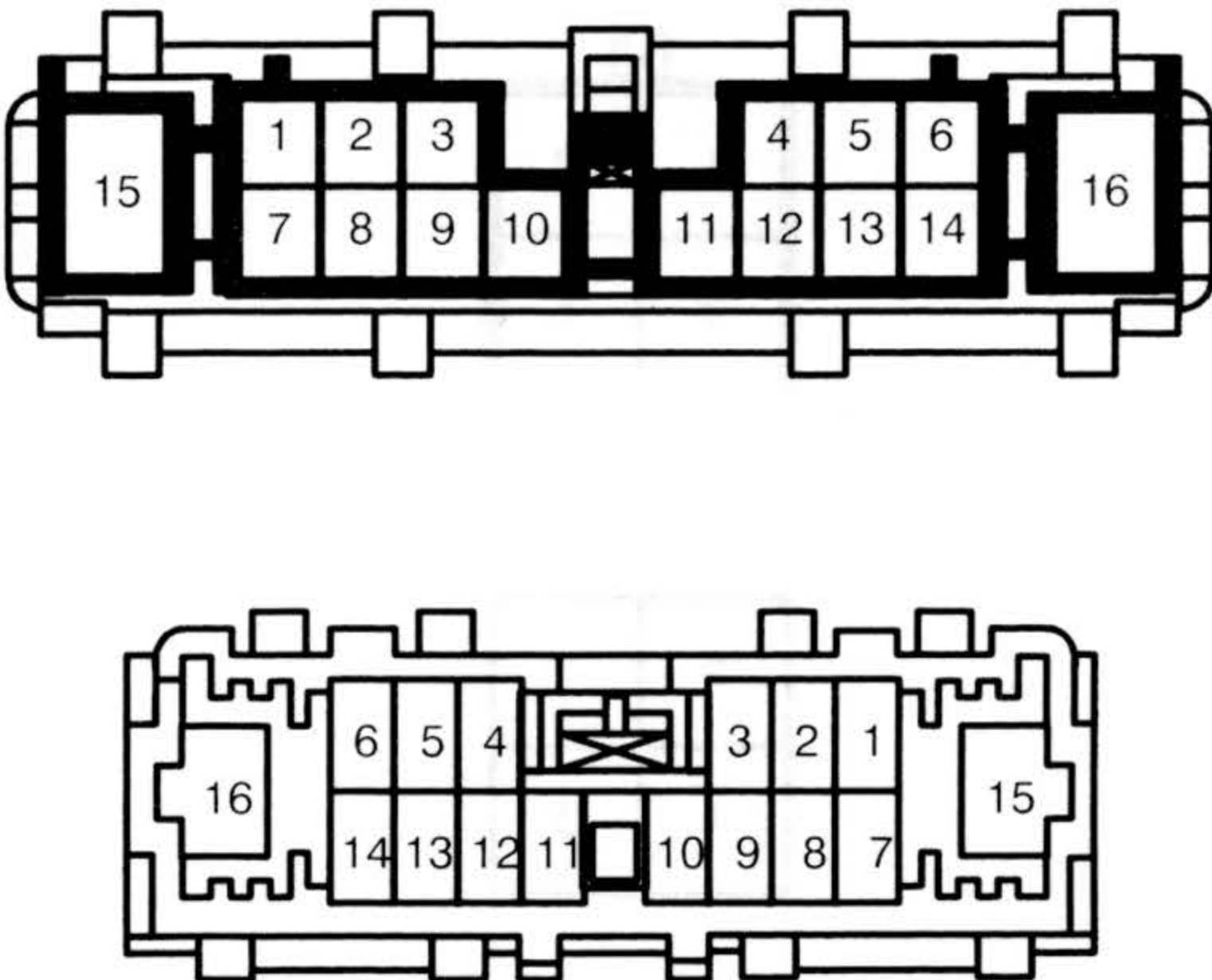
H-47



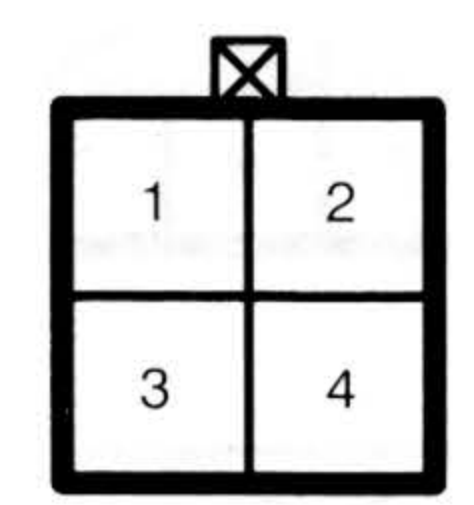
H-45



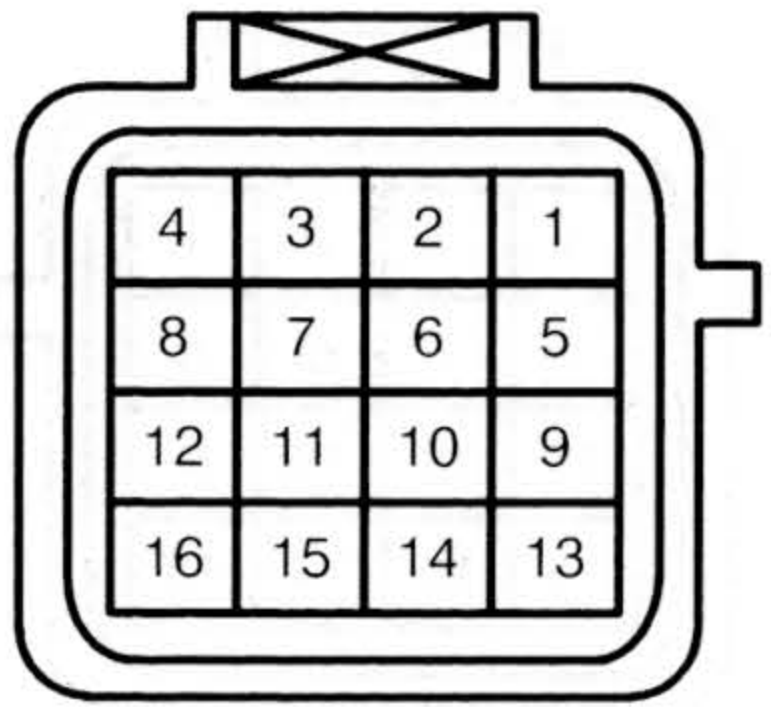
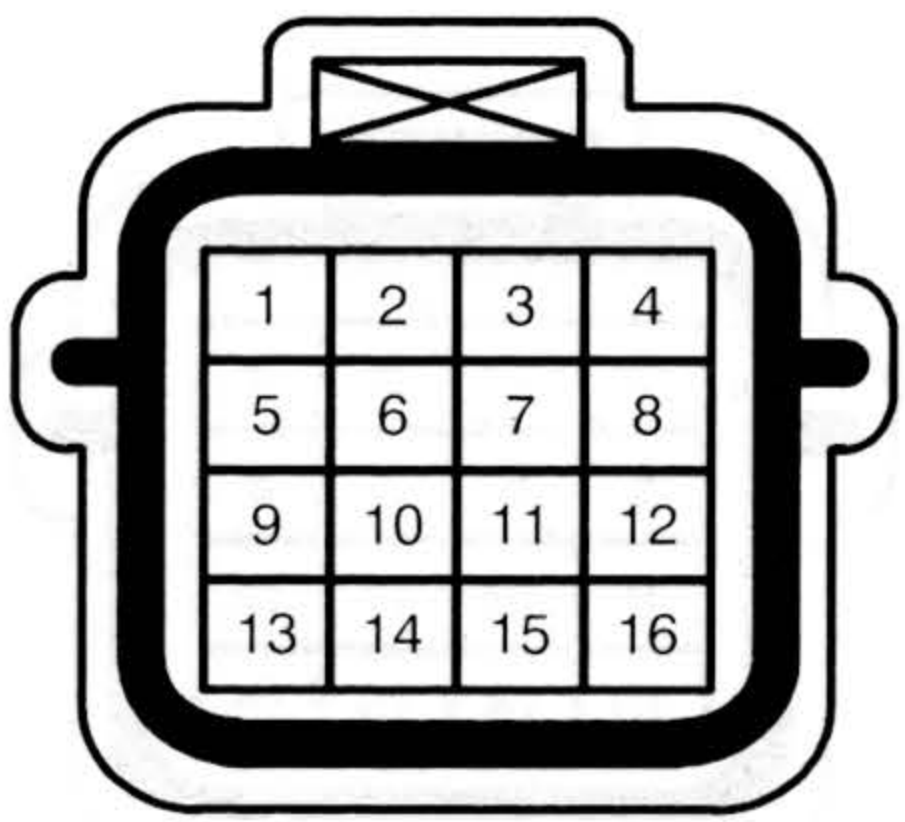
H-48



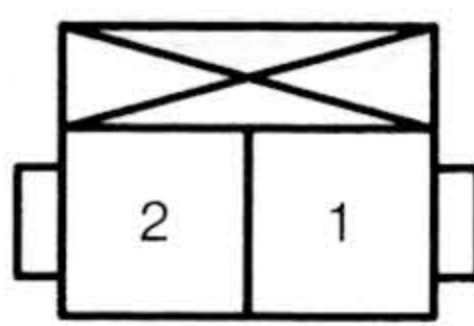
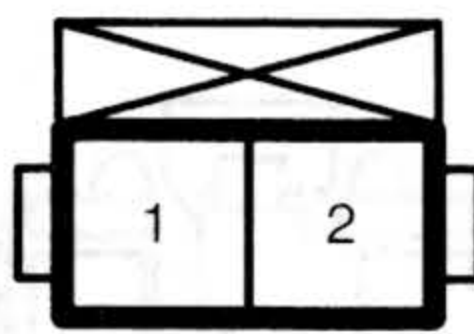
H-49



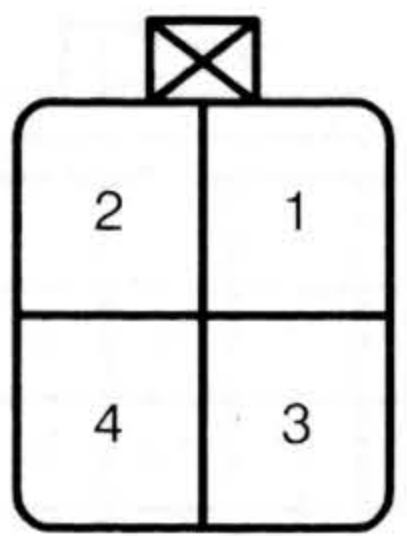
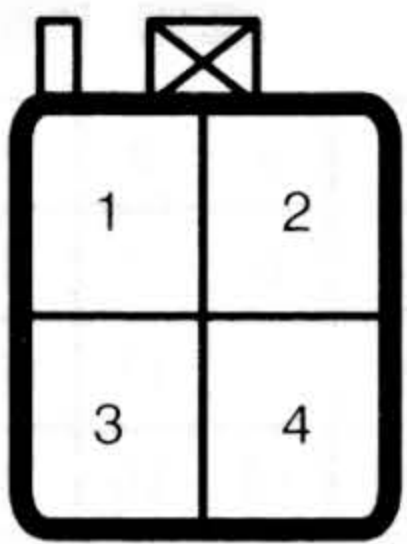
H-53



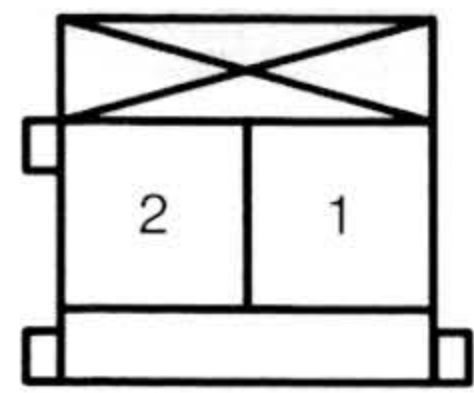
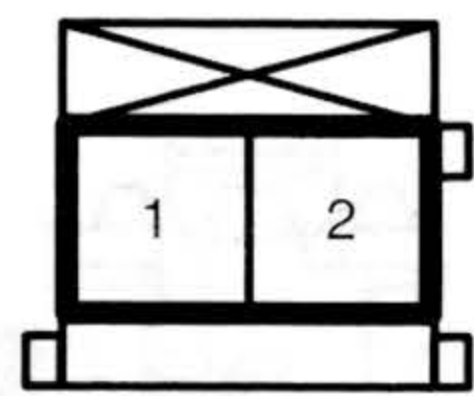
H-51



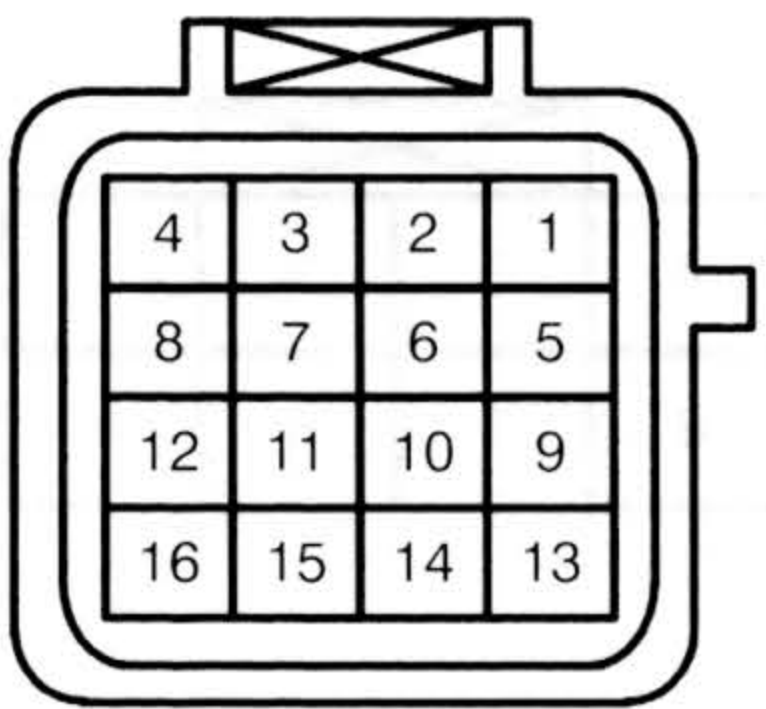
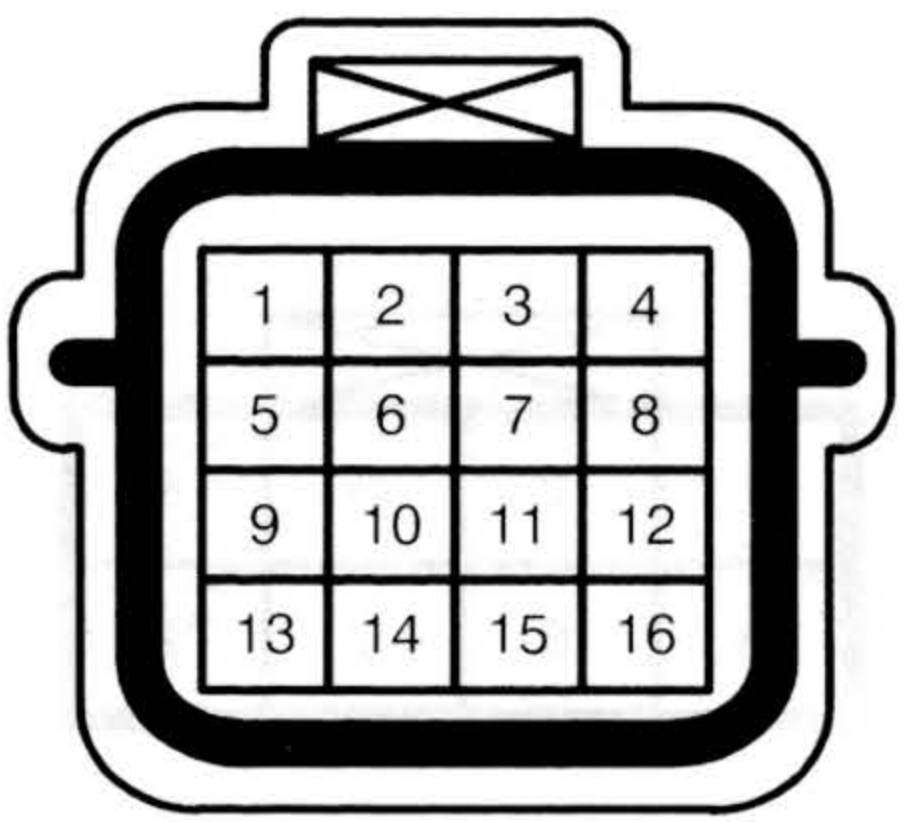
H-54



H-52

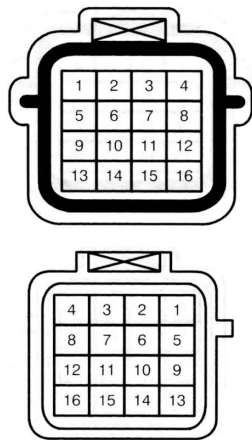


H-55

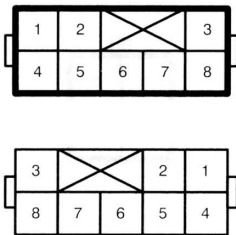


HARNESS CONNECTOR VIEWS

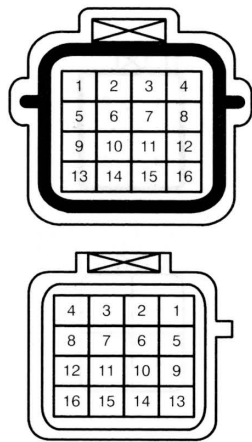
H-56



H-67



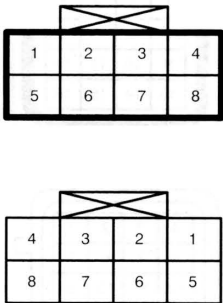
H-57



I-5



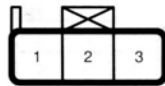
H-58



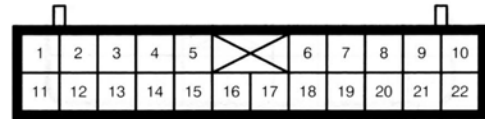
I-6



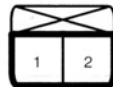
I-7



I-10



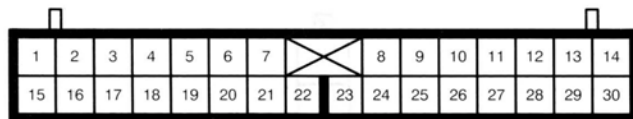
I-8



I-11



I-9

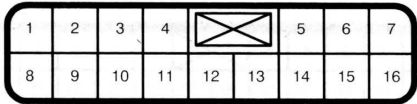


I-12

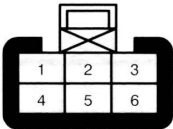


HARNESS CONNECTOR VIEWS

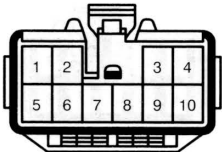
I-15



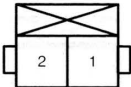
I-18



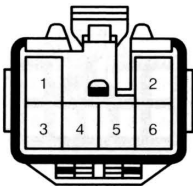
I-16



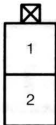
I-19



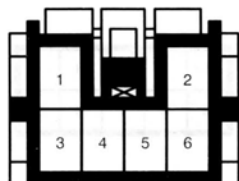
I-17



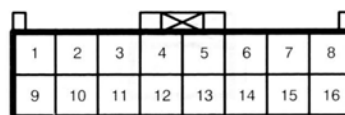
I-20



I-23



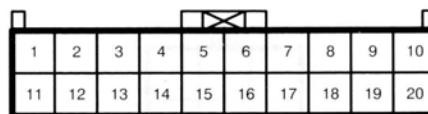
I-32



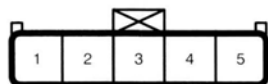
I-24



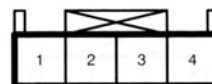
I-33



I-27

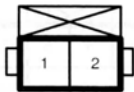


I-34



HARNESS CONNECTOR VIEWS

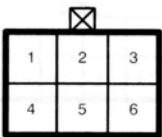
I-35, I-40



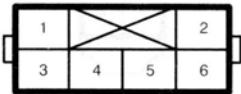
I-45



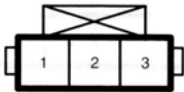
I-41



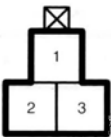
I-49



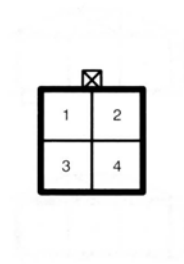
I-42



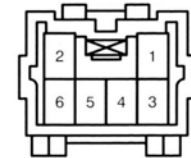
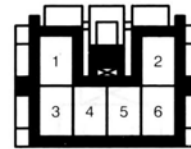
I-50



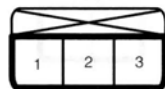
I-51



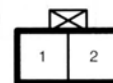
L-5



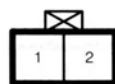
L-1



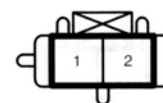
L-6



L-4

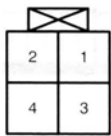


M-1

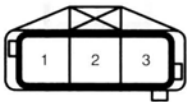
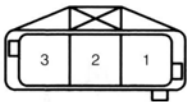


HARNESS CONNECTOR VIEWS

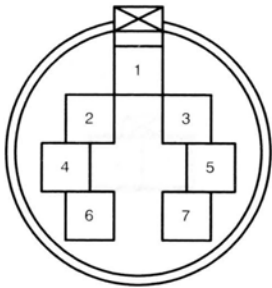
M-6



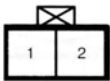
M-10



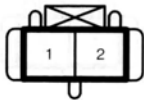
M-7



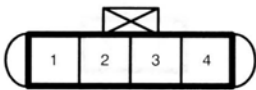
M-15



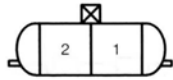
M-8



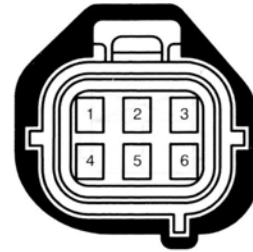
M-17, M-18, M-19, M-20



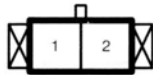
M-22



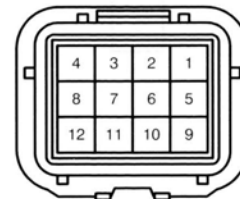
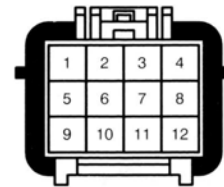
M-26



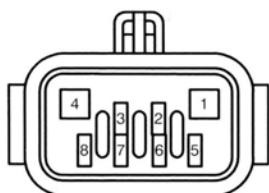
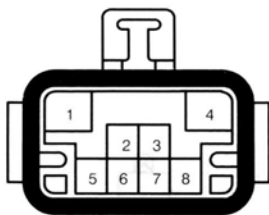
M-23, M-24



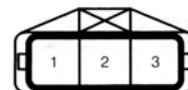
M-27



M-25

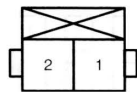


P-8

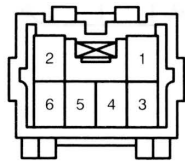
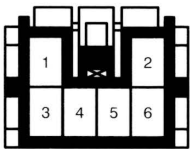


HARNESS CONNECTOR VIEWS

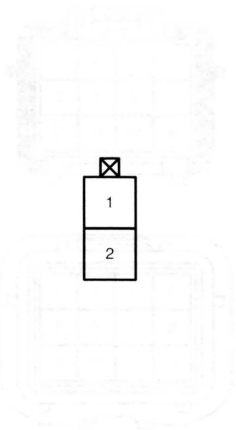
R-1



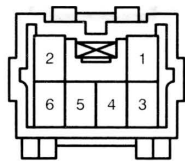
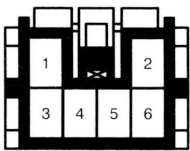
R-7



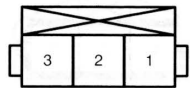
R-5



R-9



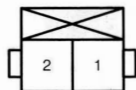
R-6



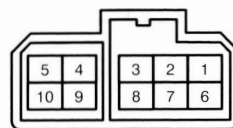
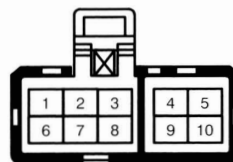
R-10



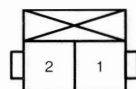
R-16



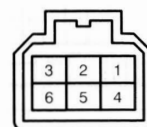
T-1



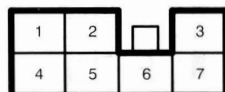
R-19



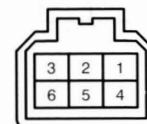
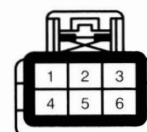
T-11



S-5

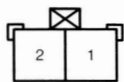


T-12

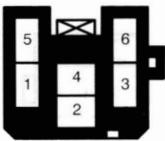


HARNESS CONNECTOR VIEWS

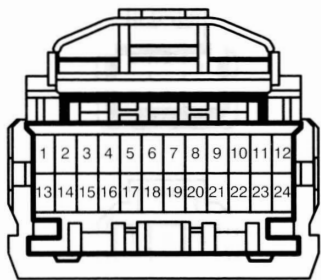
U-1



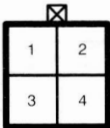
X-2



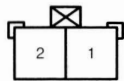
U-5



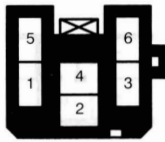
X-5, X-6, X-7, X-9, X-11, X-12



U-6



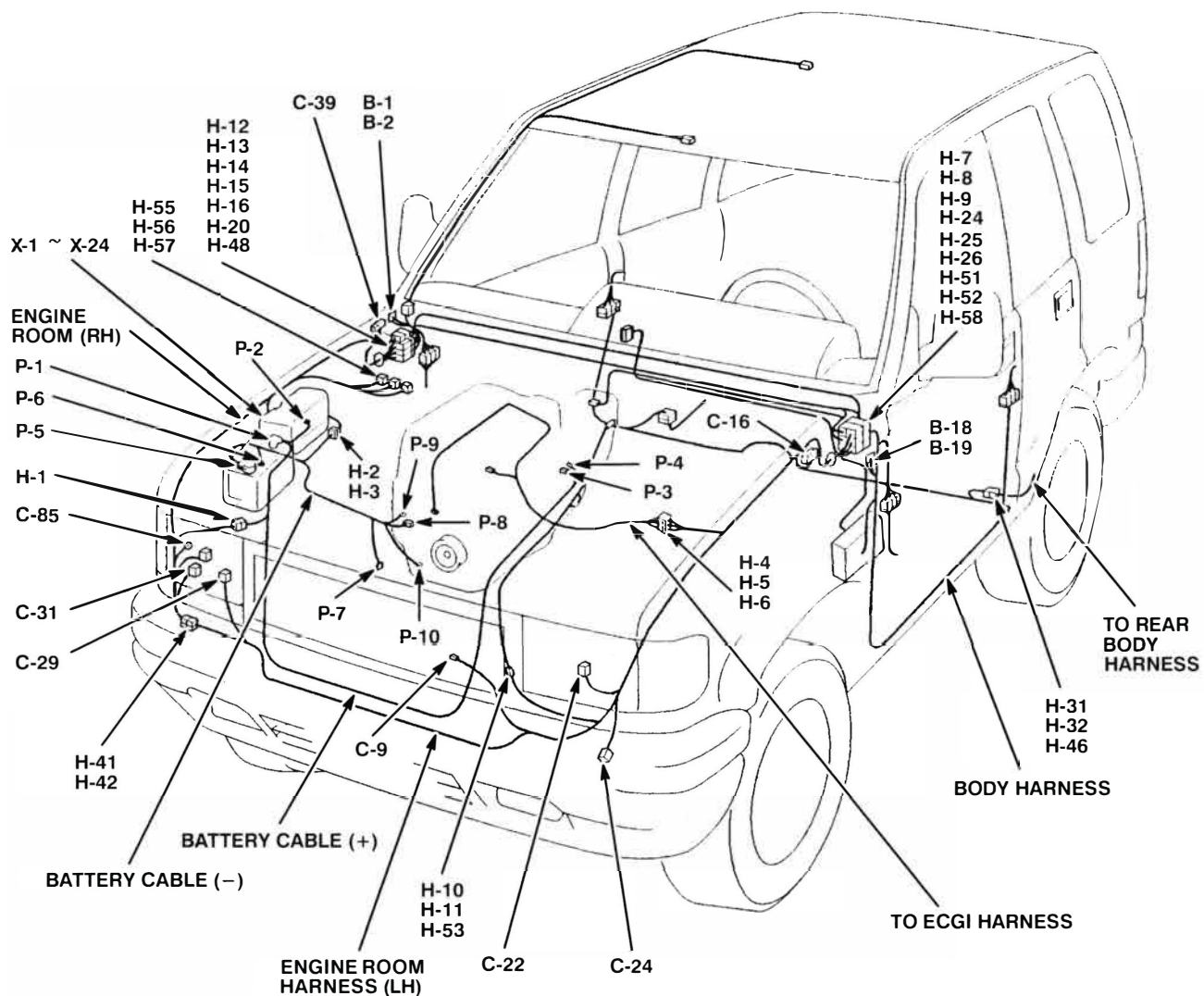
X-17, X-19



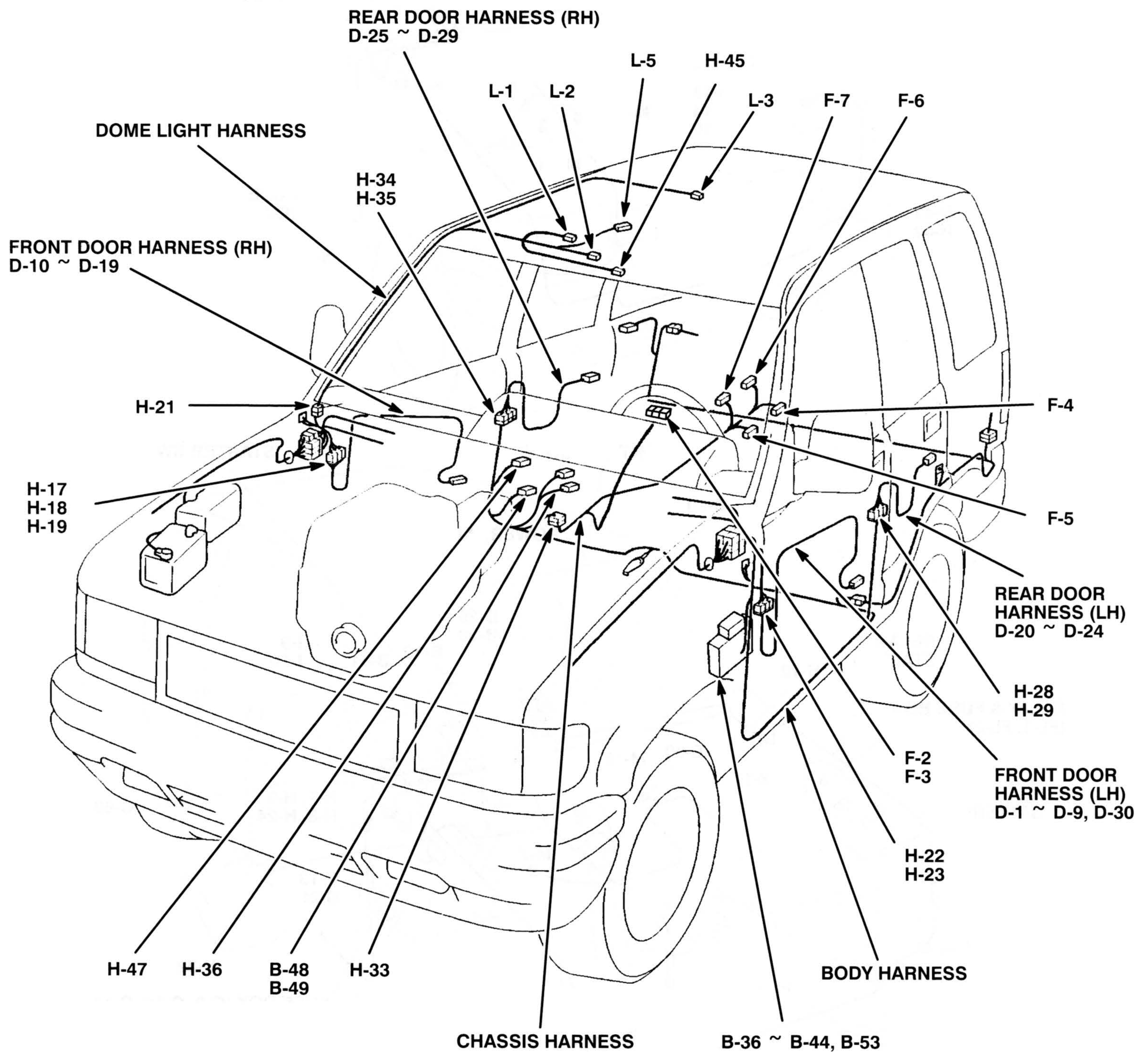
THIS PAGE INTENTIONALLY LEFT BLANK

CONNECTOR AND WIRE HARNESS ROUTING

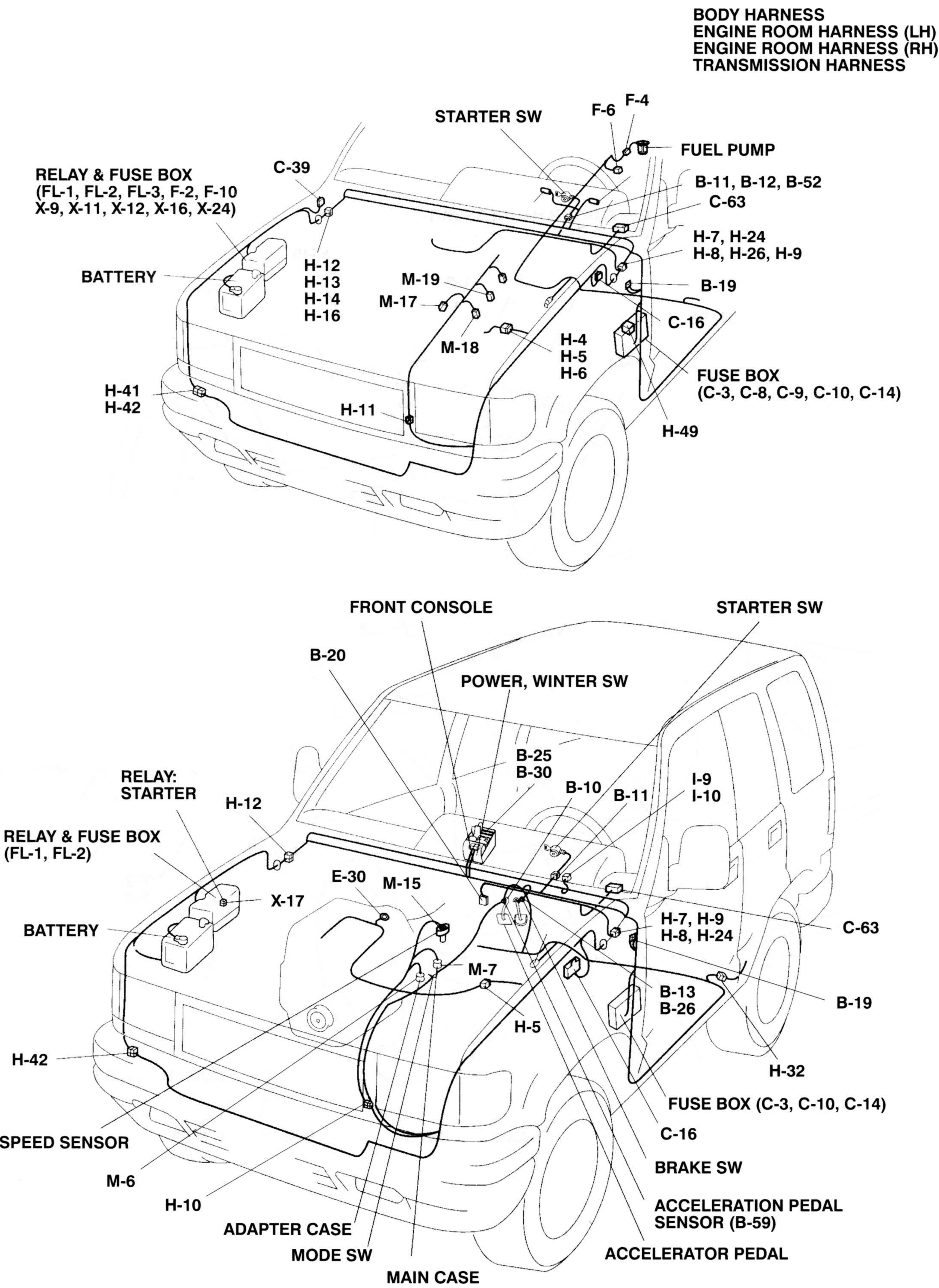
BATTERY CABLE (-)
BATTERY CABLE (+)
BODY HARNESS
ENGINE ROOM HARNESS (LH)
ENGINE ROOM HARNESS (RH)



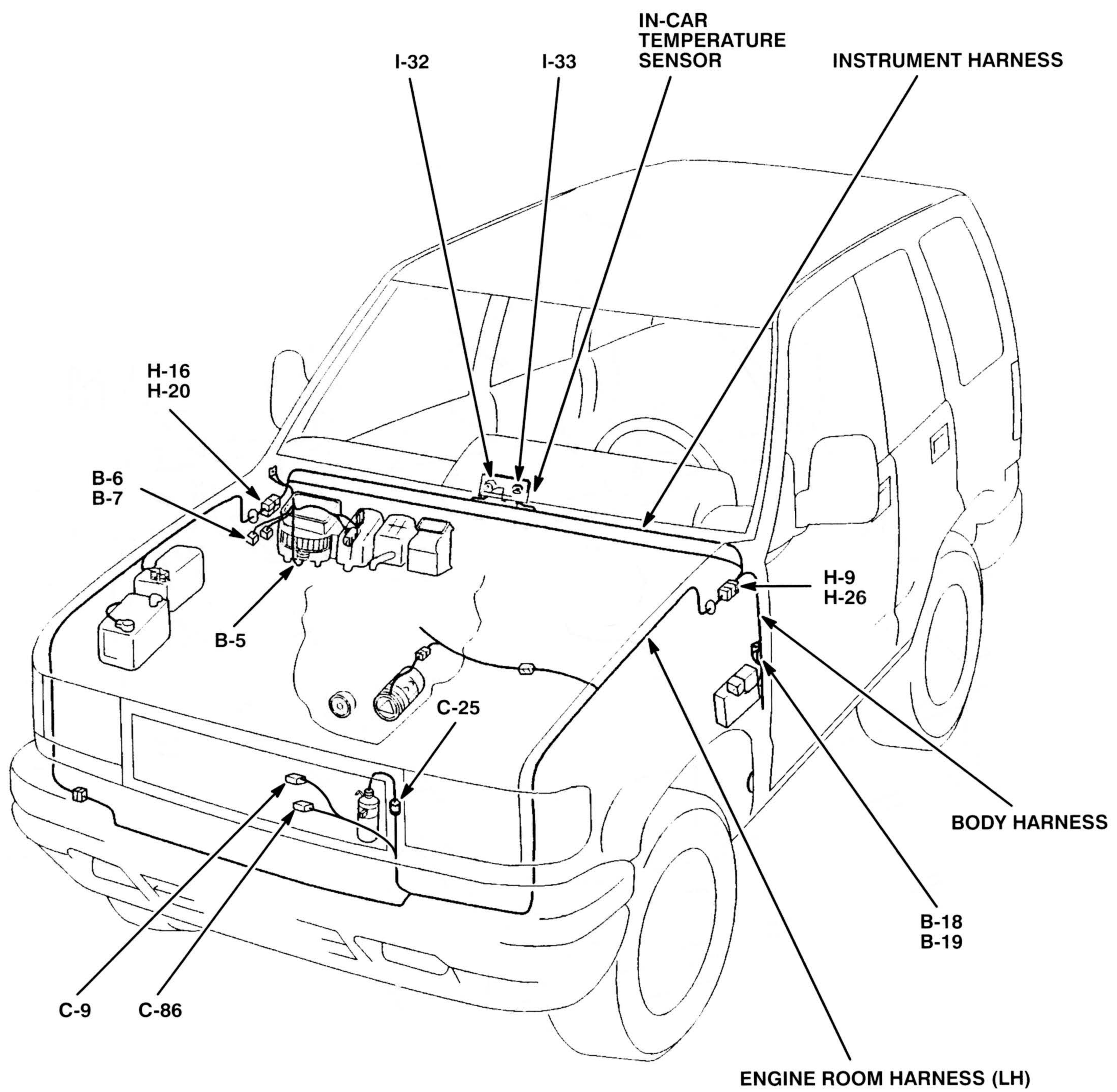
BODY HARNESS
 CHASSIS HARNESS
 DOME LIGHT HARNESS
 FRONT DOOR HARNESS (LH)
 FRONT DOOR HARNESS (RH)
 REAR DOOR HARNESS (LH)
 REAR DOOR HARNESS (RH)



CONNECTOR AND WIRE HARNESS ROUTING

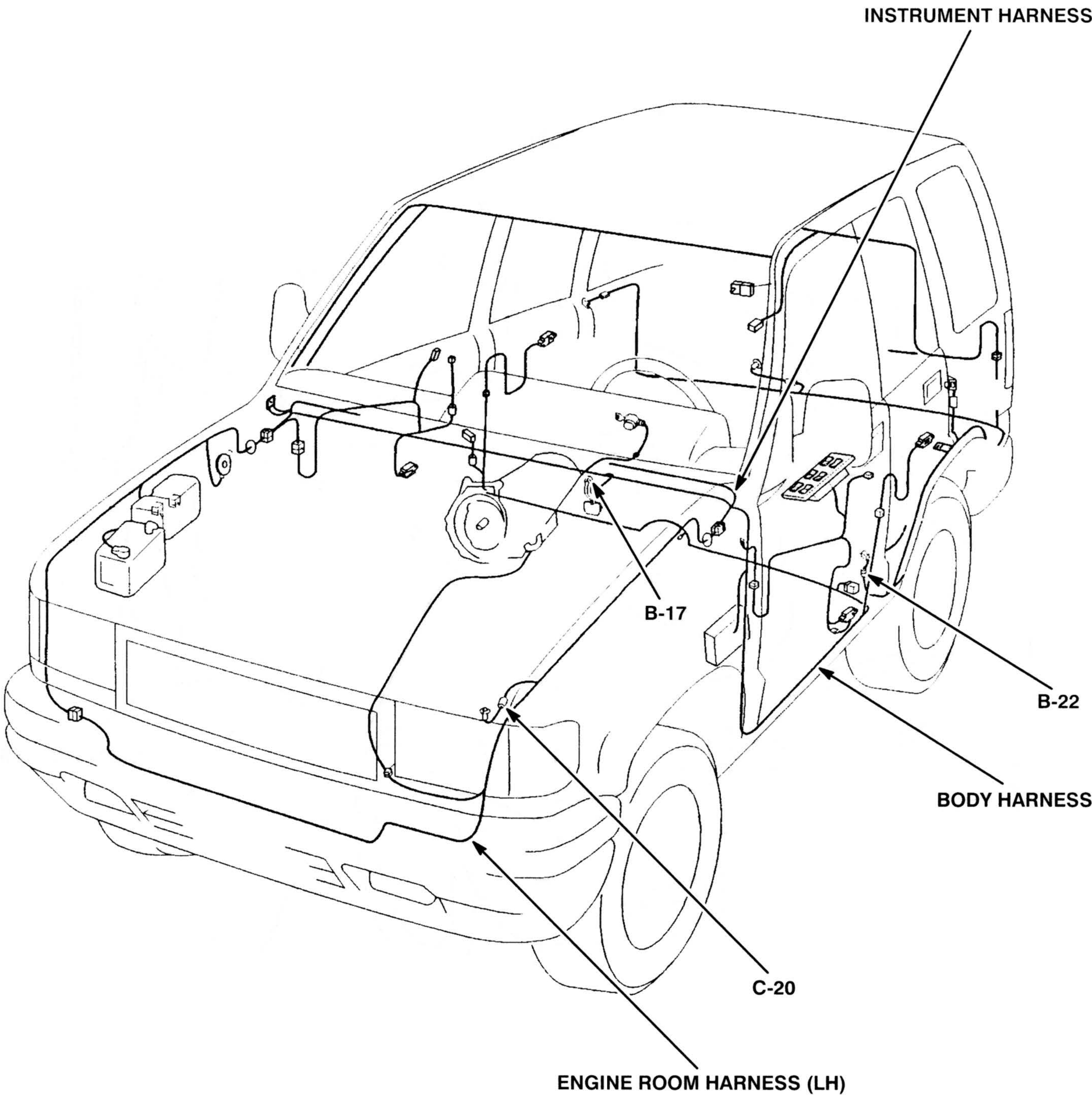


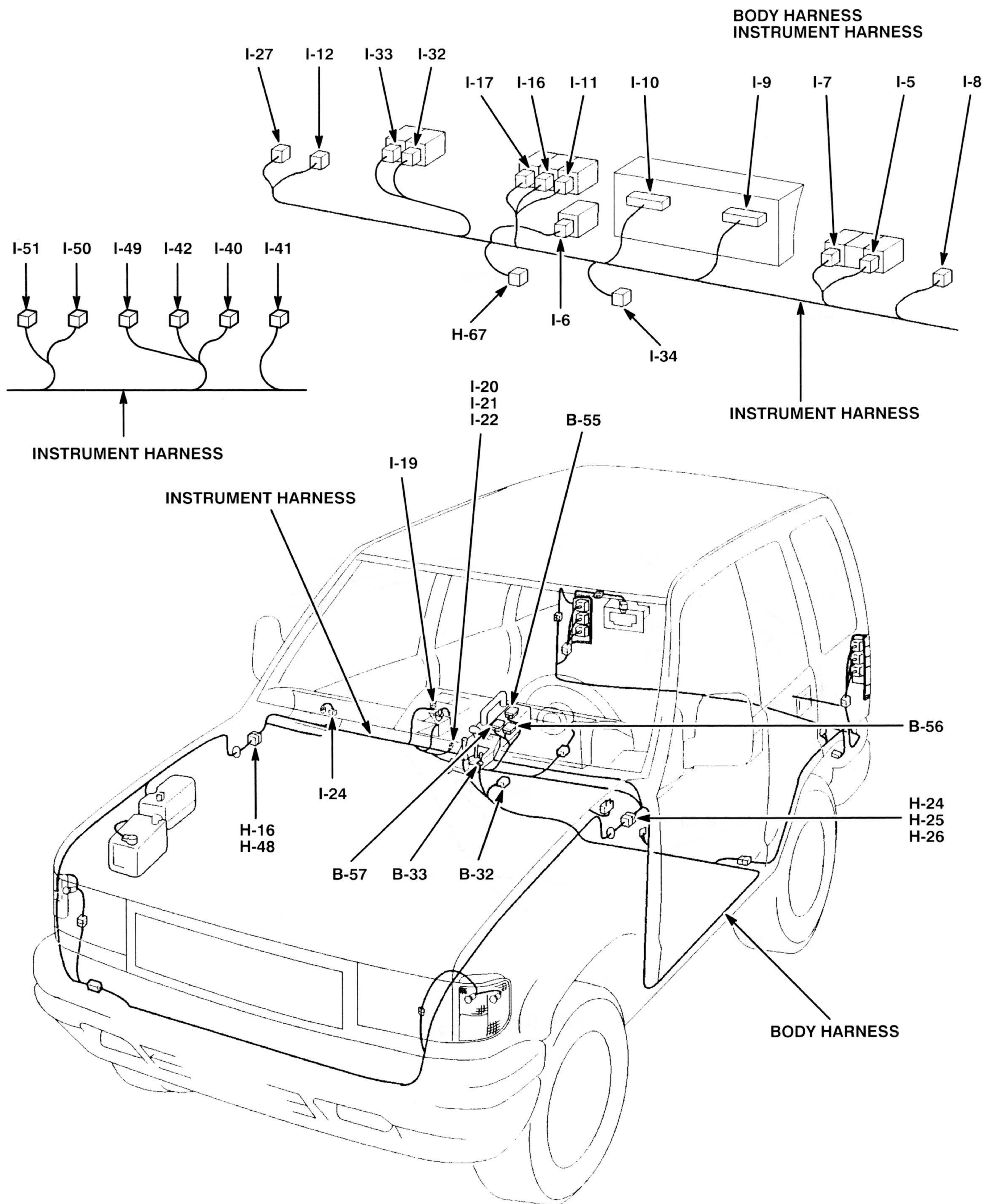
BODY HARNESS
ENGINE ROOM HARNESS (LH)
INSTRUMENT HARNESS



CONNECTOR AND WIRE HARNESS ROUTING

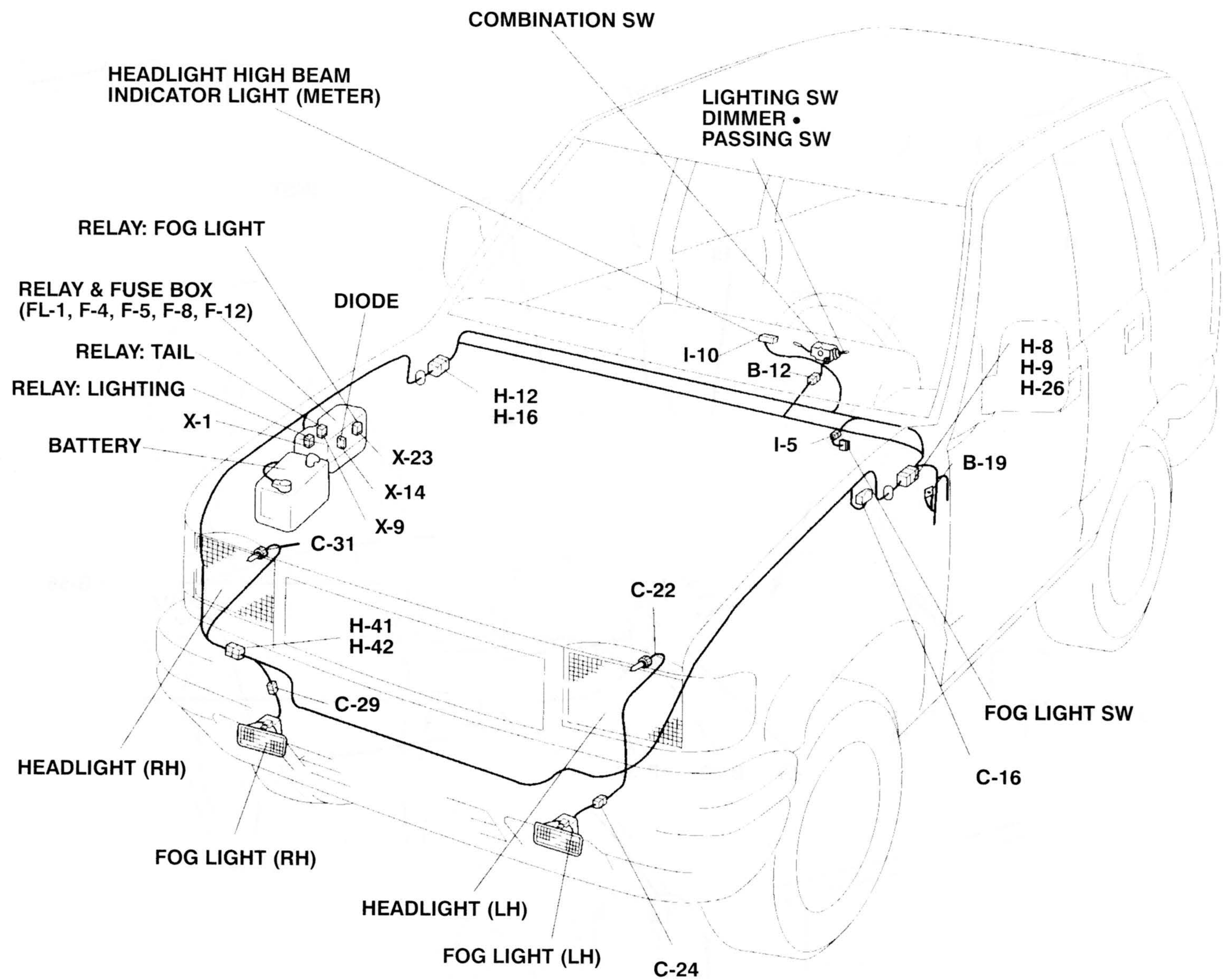
BODY HARNESS
ENGINE ROOM HARNESS (LH)
INSTRUMENT HARNESS



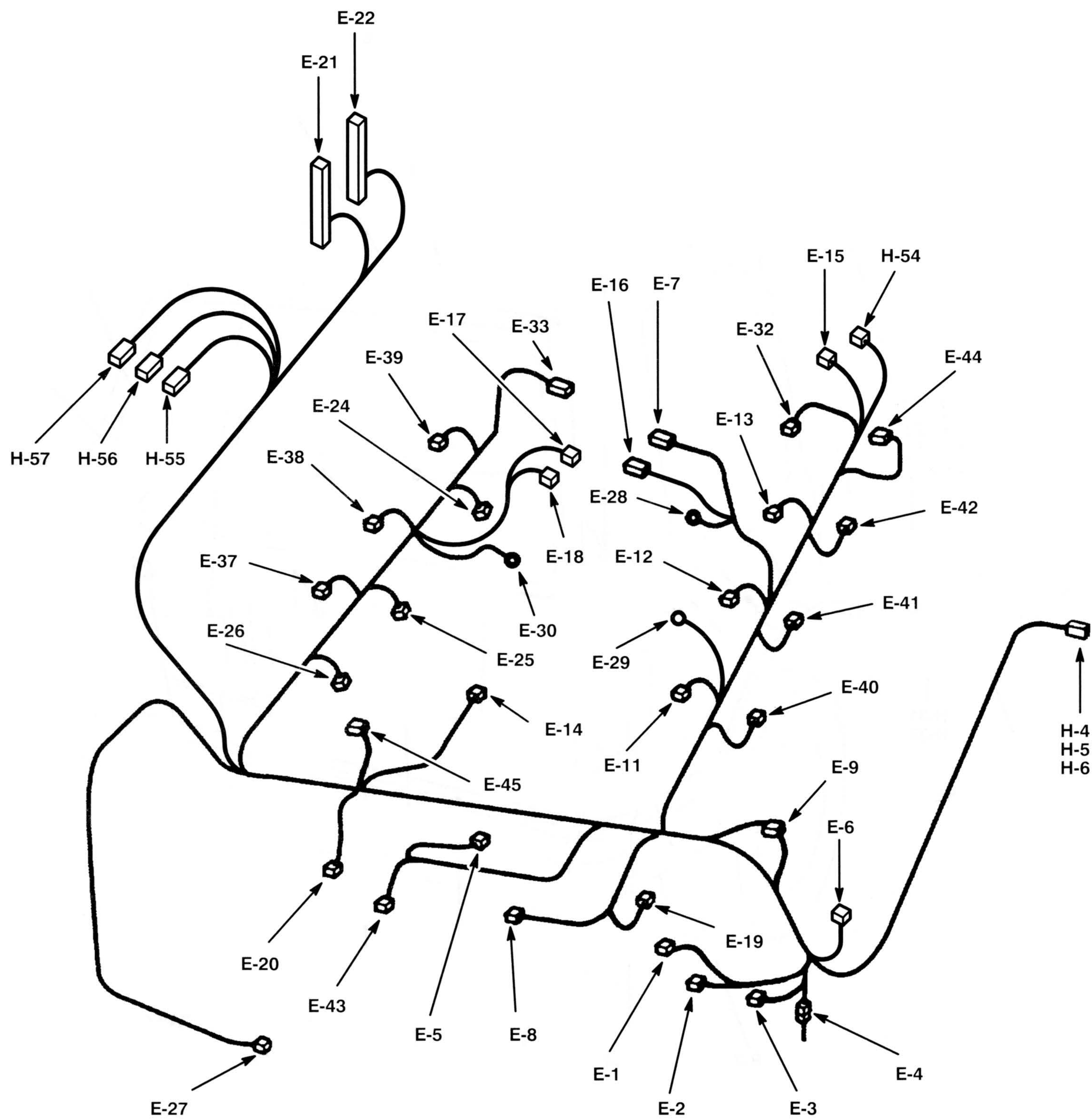


CONNECTOR AND WIRE HARNESS ROUTING

BODY HARNESS
INSTRUMENT HARNESS

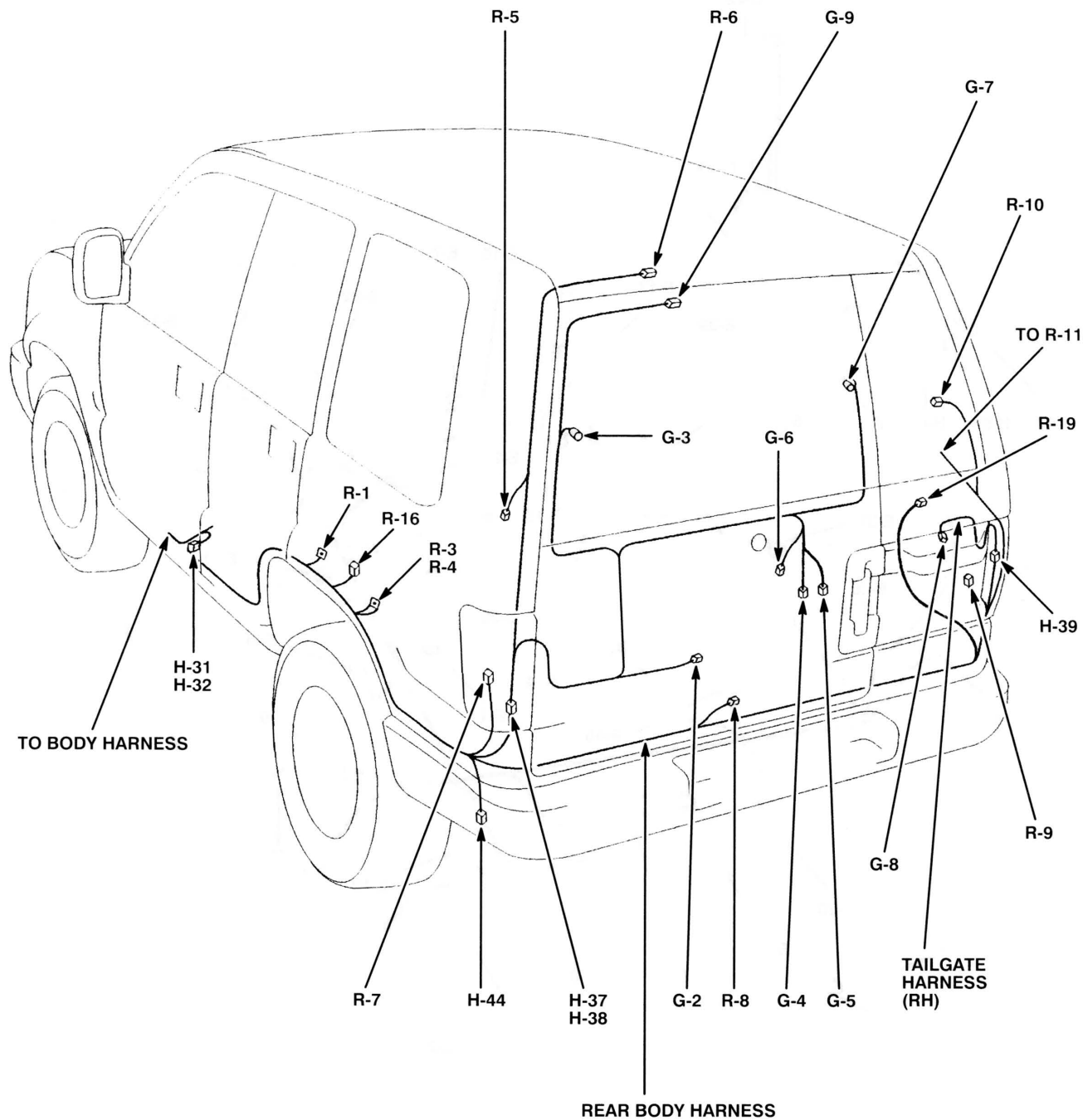


ENGINE ECGI HARNESS

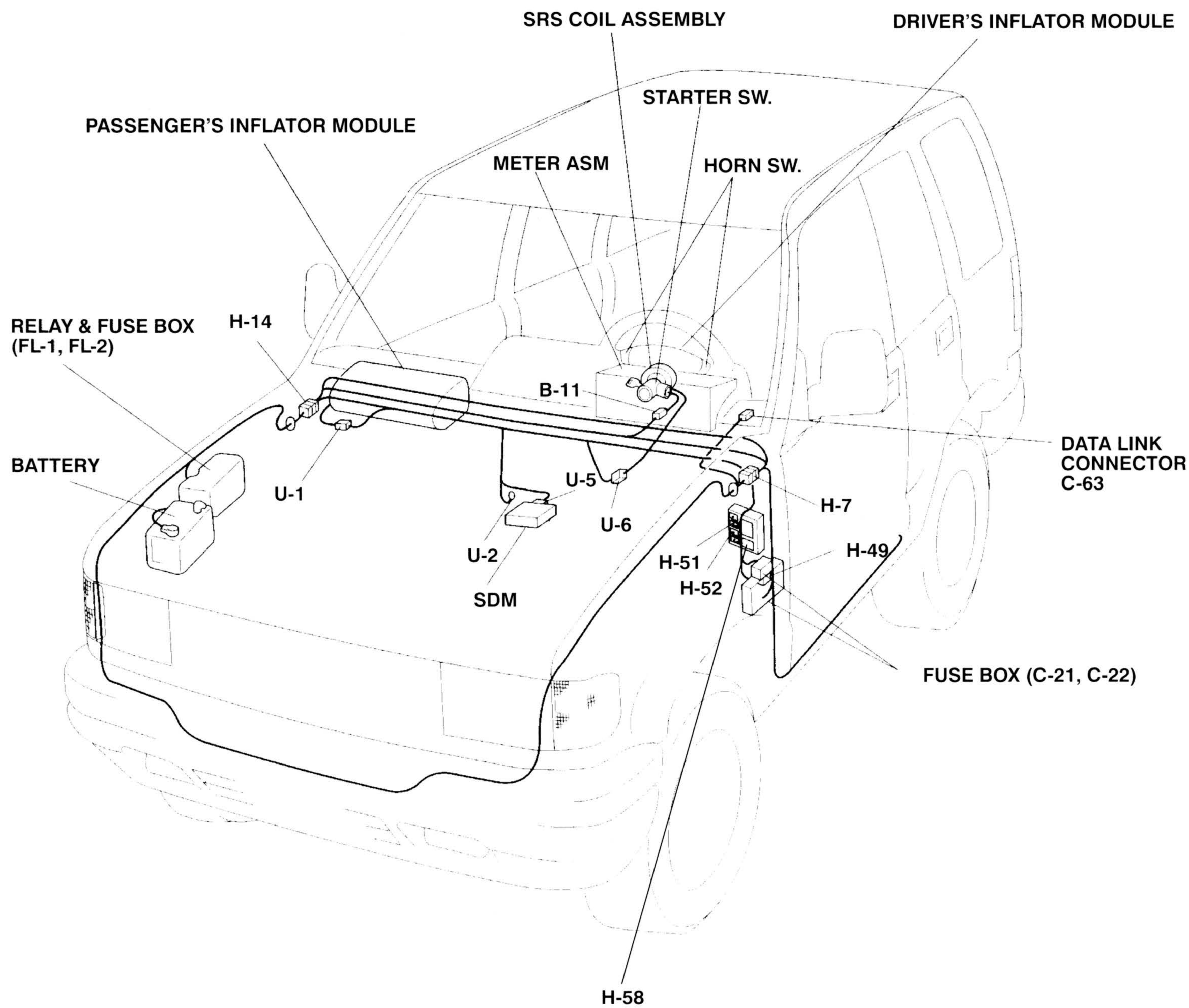


CONNECTOR AND WIRE HARNESS ROUTING

REAR BODY HARNESS
TAILGATE HARNESS (LH)
TAILGATE HARNESS (RH)



SRS HARNESS



Request for ETM Change or Correction

Describe the car you worked on:

ModelYearVehicle Identification Number

Engine TypeEngine Serial Number

The problem is with:

- ☐ Circuit schematic on page _____.
(Attach a corrected copy of the schematic)
- ☐ Component Location Index or photo on page _____.
☐ Other (describe below).
- ☐ Circuit operation or diagnosis on page _____.
☐ Other (describe below).

Comments:

Dealer No.Dealer NameService Manager SignatureDate

Request for ETM Change or Correction

Describe the car you worked on:

ModelYearVehicle Identification Number

Engine TypeEngine Serial Number

The problem is with:

- ☐ Circuit schematic on page _____.
(Attach a corrected copy of the schematic)
- ☐ Component Location Index or photo on page _____.
☐ Other (describe below).
- ☐ Circuit operation or diagnosis on page _____.
☐ Other (describe below).

Comments:

Dealer No.Dealer NameService Manager SignatureDate

Request for ETM Change or Correction

Describe the car you worked on:

ModelYearVehicle Identification Number

Engine TypeEngine Serial Number

The problem is with:

- ☐ Circuit schematic on page _____.
(Attach a corrected copy of the schematic)
- ☐ Component Location Index or photo on page _____.
☐ Other (describe below).
- ☐ Circuit operation or diagnosis on page _____.
☐ Other (describe below).

Comments:

Dealer No.Dealer NameService Manager SignatureDate

Request for ETM Change or Correction

Describe the car you worked on:

ModelYearVehicle Identification Number

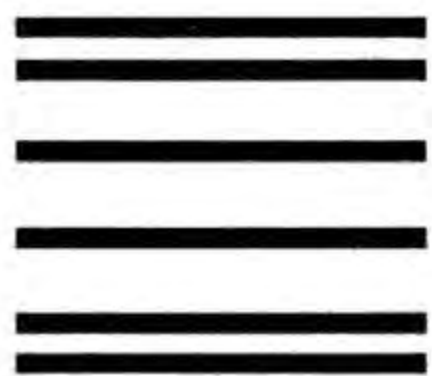
Engine TypeEngine Serial Number

The problem is with:

- ☐ Circuit schematic on page _____.
(Attach a corrected copy of the schematic)
- ☐ Component Location Index or photo on page _____.
☐ Other (describe below).
- ☐ Circuit operation or diagnosis on page _____.
☐ Other (describe below).

Comments:

Dealer No.Dealer NameService Manager SignatureDate



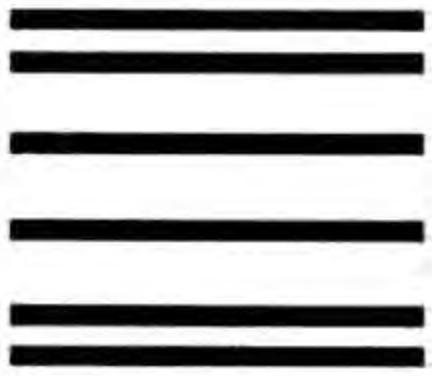
NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 31 ARTESIA CALIFORNIA

Postage will be paid by:

AMERICAN ISUZU MOTORS INC.
ATTN: SERVICE COMMUNICATIONS
13340 183RD STREET
CERRITOS CALIFORNIA 90702-6007



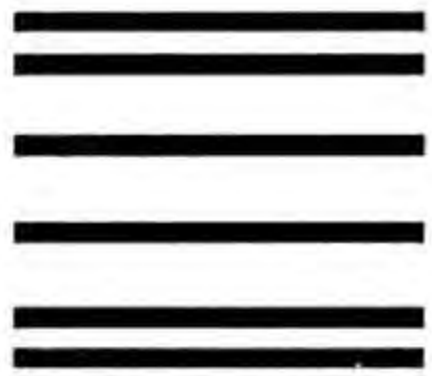
NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 31 ARTESIA CALIFORNIA

Postage will be paid by:

AMERICAN ISUZU MOTORS INC.
ATTN: SERVICE COMMUNICATIONS
13340 183RD STREET
CERRITOS CALIFORNIA 90702-6007



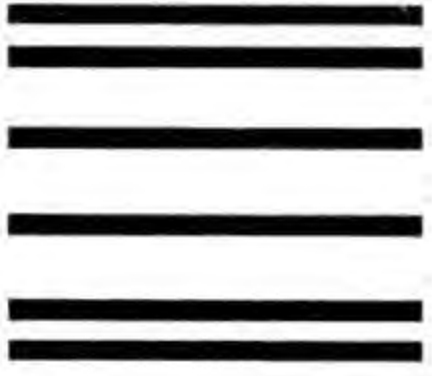
NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 31 ARTESIA CALIFORNIA

Postage will be paid by:

AMERICAN ISUZU MOTORS INC.
ATTN: SERVICE COMMUNICATIONS
13340 183RD STREET
CERRITOS CALIFORNIA 90702-6007



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 31 ARTESIA CALIFORNIA

Postage will be paid by:

AMERICAN ISUZU MOTORS INC.
ATTN: SERVICE COMMUNICATIONS
13340 183RD STREET
CERRITOS CALIFORNIA 90702-6007



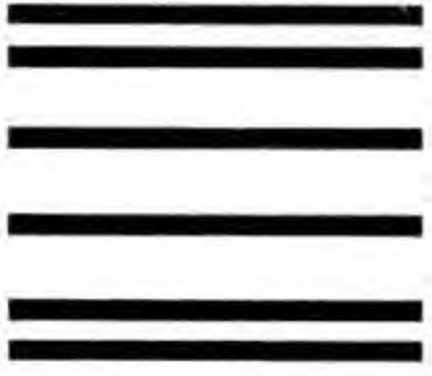
NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 31 ARTESIA CALIFORNIA

Postage will be paid by:

AMERICAN ISUZU MOTORS INC.
ATTN: SERVICE COMMUNICATIONS
13340 183RD STREET
CERRITOS CALIFORNIA 90702-6007



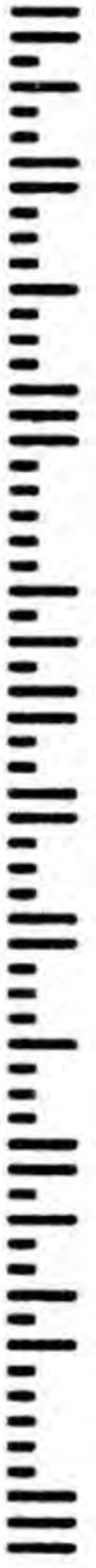
NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 31 ARTESIA CALIFORNIA

Postage will be paid by:

AMERICAN ISUZU MOTORS INC.
ATTN: SERVICE COMMUNICATIONS
13340 183RD STREET
CERRITOS CALIFORNIA 90702-6007



ISUZU

AMERICAN ISUZU MOTORS INC.



UX2000-ETM-L01